

TEST REPORT IEC 60950-1 Information technology equipment - Safety - Part 1: General requirements	
Report Reference No	E234884-A312
Date of issue	2018-08-06
Total number of pages	82
Applicant's name	ZHEJIANG DAHUA VISION TECHNOLOGY CO LTD
Address	NO.1199 BIN'AN RD. BINJIANG DISTRICT HANGZHOU ZHEJIANG 310053 CHINA
Test specification:	
Standard	IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013
Test procedure	Informative
Non-standard test method	N/A
Test Report Form No.	IEC60950_1F
Test Report Form originator	SGS Fimko Ltd
Master TRF	Dated 2014-02
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Test item description	Intelligent Video Surveillance Server
Trade Mark	None
Manufacturer	ZHEJIANG DAHUA VISION TECHNOLOGY CO LTD NO.1199 BIN'AN RD. BINJIANG DISTRICT HANGZHOU ZHEJIANG 310053 CHINA
Model/Type reference	DHI-IVSS7008, IVSS7008, DHI-IVSS7008#####, IVSS7008#####, DHI-HS708#####, HS708##### # can be '0-9' or 'a-z' or 'A-Z' or '-', which indicate different software that do not affect the safety.
Ratings	100-240Vac, 50-60Hz, 3A

Testing procedure and testing location:		
	Testing location / address	UL-CCIC Company Limited No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China
	Tested by (name + signature)	
	Approved by (+ signature).....	

List of Attachments National Differences (26 pages) Enclosures (pages)
Summary of Testing: No tests were conducted
Summary of Compliance with National Differences: Countries outside the CB Scheme membership may also accept this report. List of countries addressed: AT, BE, BG, BY, CA, CH, CS, CZ, DE, DK, EU, FI, FR, GB, GR, HU, IT, NL, NO, PL, RO, SE, SI, SK, UA, US The product fulfills the requirements of: EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013
Copy of Marking Plate - Refer to Enclosure titled Marking Plate for copy.

Test item particulars :

Equipment mobility	movable
Connection to the mains	pluggable A
Operating condition	continuous
Access location	operator accessible
Over voltage category (OVC)	OVC II
Mains supply tolerance (%) or absolute mains supply values	+10%, -10% (Manufacturer declared)
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed)
Considered current rating of protective device as part of the building installation (A)	20A
Pollution degree (PD)	PD 2
IP protection class	IP X0
Altitude of operation (m)	up to 2000m
Altitude of test laboratory (m)	less than 2000 meters
Mass of equipment (kg)	11.85Kg

Possible test case verdicts:

- test case does not apply to the test object	N / A
- test object does meet the requirement	P(Pass)
- test object does not meet the requirement	F(Fail)

Testing:

Date(s) of receipt of test item	N/A
Date(s) of Performance of tests	N/A

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.

Name and address of Factory(ies): ZHEJIANG DAHUA VISION TECHNOLOGY CO LTD
NO.1199 BIN'AN RD. BINJIANG DISTRICT
HANGZHOU
ZHEJIANG 310053 CHINA

GENERAL PRODUCT INFORMATION:**Report Summary****Product Description**

Unit was supplied by building-in power supply. Consists of 8 H.D.Ds and all components were mounted on PWB and housed with metal and plastic enclosure.

Model Differences

Models IVSS7008, DHI-IVSS7008#####, IVSS7008#####, DHI-HS708#####, HS708##### (# can be '0-9' or 'a-z' or 'A-Z' or '-') are Identical to model DHI-IVSS7008 except for model designation and software which does not affect the safety.

Additional Information

N/A

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 55 °C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 (which includes all European national differences, including those specified in this test report).
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): All output ports.
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The power supply in this equipment was: Investigated to IEC 60950-1. As part of the investigation of this product, the power supply and its test report were reviewed and found to comply with IEC 60950-1.,

Abbreviations used in the report:

- normal condition	N.C.	- single fault condition.....	S.F.C
- operational insulation	OP	- basic insulation	BI
- basic insulation between parts of opposite polarity:	BOP	- supplementary insulation	SI

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- double insulation DI - reinforced insulation RI

Indicate used abbreviations (if any)

DRAFT

1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	<p>-Components certified to IEC harmonized standard and checked for correct application.</p> <p>-Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.</p> <p>-Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard.</p>	Pass
1.5.3	Thermal controls	No thermal controls provided.	N/A
1.5.4	Transformers	Evaluated in R/C power supply.	N/A
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.6	Capacitors bridging insulation	Evaluated in recognized power supply.	N/A
1.5.7	Resistors bridging insulation		N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors	Evaluated in recognized power supply.	N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A

1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
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1.6	Power interface		Pass
1.6.1	AC power distribution systems		Pass
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.	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral insulation is provided in the power supply.	Pass

1.7	Marking and instructions		Pass
1.7.1	Power rating and identification markings	Rating marking readily visible to operator.	Pass
1.7.1.1	Power rating mark		Pass
	Multiple mains supply connections.....:	one power supply provided.	N/A
	Rated voltage(s) or voltage range(s) (V)	100-240V,50-60Hz,3.0A	Pass
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz)	100-240V,50-60Hz,3.0A	Pass
	Rated current (mA or A)	100-240V,50-60Hz,3.0A	Pass
1.7.1.2	Identification markings		Pass
	Manufacturer's name or trademark or identification mark	ZHEJIANG DAHUA VISION TECHNOLOGY CO LTD. or "E234884"	Pass
	Model identification or type reference	DHI-IVSS7008, IVSS7008, DHI-IVSS7008#####, IVSS7008#####, DHI-HS708#####, HS708##### # can be '0-9' or 'a-z' or 'A-Z' or '-'	Pass
	Symbol for Class II equipment only.....:		N/A
	Other markings and symbols	Additional markings are used and are defined in the installation instructions.	Pass
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	Operating/safety instructions made available to the user.	Pass

1.7.2.1	General		Pass
1.7.2.2	Disconnect devices		N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment	Equipment is auto-ranging.	N/A
	Method and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment.....		N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Evaluated in R/C power supply.	N/A
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals.....	The earth terminal is marked with the standard earth symbol (60417-2-IEC-5019) near the terminal.	Pass
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	Only used for indicators.	Pass
1.7.8.1	Identification, location and marking	The function of controls affecting safety is obvious regardless of language.	N/A
1.7.8.2	Colours	Only functional indicators use color.	N/A
1.7.8.3	Symbols according to IEC 60417	have been evaluated as part of PSU	Pass
1.7.8.4	Markings using figures		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices	No thermostats or similar regulating devices.	N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.12	Removable parts	No marking is located on (a) removable part(s).	Pass
1.7.13	Replaceable batteries	The lithium battery is not located in an Operator Access Area. The required warning is in the service manual.	Pass

	Language(s)	Only English language reviewed.	-
1.7.14	Equipment for restricted access locations	Equipment not intended for installation in a RESTRICTED ACCESS LOCATION.	N/A

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts	The operator has access to bare parts of SELV CIRCUITS.	Pass
	Test by inspection	All accessible circuits are SELV circuits by inspection.	Pass
	Test with test finger (Figure 2A)	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits by inspection.	Pass
	Test with test pin (Figure 2B)	The test pin was unable to contact bare hazardous parts by inspection.	Pass
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No internal wiring in an ELV circuits is accessible to the operator.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards	Output is not energy hazard.	N/A
2.1.1.6	Manual controls	The equipment does not contain any knobs, handles, levers, or the like.	N/A
2.1.1.7	Discharge of capacitors in equipment		N/A
	Measured voltage (V); time-constant (s)		-
2.1.1.8	Energy hazards - d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply ...:		N/A
	b) Internal battery connected to the mains supply .:		N/A
2.1.1.9	Audio amplifiers		N/A
2.1.2	Protection in service access areas	Hazardous bare parts are guarded and unintentional contact with such parts is unlikely during servicing operations involving other	Pass

		parts of the equipment.	
2.1.3	Protection in restricted access locations		N/A

2.2	SELV circuits		Pass
2.2.1	General requirements		Pass
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less than 42.4Vpk or 60Vdc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V)	Under fault conditions voltages never exceed 71Vpk and 120Vdc and do not exceed 42.4Vpk or 60Vdc for more than 0.2s.	Pass
2.2.4	Connection of SELV circuits to other circuits	SELV to SELV.	Pass

2.3	TNV circuits		N/A
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2.4	Limited current circuits		N/A
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2.5	Limited power sources		Pass
	a) Inherently limited output		Pass
	b) Impedance limited output		Pass
	c) Regulating network limited output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters.....		-
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	See table 2.5 for details.	-
	Current rating of overcurrent protective device (A) :		-

2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing.....		N/A
2.6.3	Protective earthing and protective bonding conductors		Pass
2.6.3.1	General	Protective earthing conductor is sized appropriately for application.	Pass

2.6.3.2	Size of protective earthing conductors	Power supply cord earthing conductor complies with Table 3B.	Pass
	Rated current (A), cross-sectional area (mm ²), AWG	--	-
2.6.3.3	Size of protective bonding conductors	evaluated based on 2.6.3.4.	Pass
	Rated current (A), cross-sectional area (mm ²), AWG	-	-
	Protective current rating (A), cross-sectional area (mm ²), AWG	-	-
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min)	0.59V after 40A for 2mins	Pass
2.6.3.5	Colour of insulation.....		N/A
2.6.4	Terminals		Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals		Pass
	Rated current (A), type, nominal thread diameter (mm)	Test according to 2.6.3.4.	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		Pass
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance	No risk of corrosion. Complies with Annex J.	Pass
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements		Pass
	Instructions when protection relies on building installation		Pass
2.7.2	Faults not covered in 5.3.7	Protection from faults not covered in 5.3 are provided by installation.	Pass
2.7.3	Short-circuit backup protection	The building installation is	Pass

		considered as providing short-circuit backup protection.	
2.7.4	Number and location of protective devices	One protective device in the "LIVE" phase	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
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2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Natural rubber, materials containing asbestos and hygroscopic materials are not used as insulation.	Pass
2.9.2	Humidity conditioning		N/A
	Relative humidity (%), temperature (°C)		-
2.9.3	Grade of insulation		Pass
2.9.4	Separation from hazardous voltages		Pass
	Method(s) used	Method 1.	-

2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General		Pass
2.10.1.1	Frequency		N/A
2.10.1.2	Pollution degrees.....	PD2	Pass
2.10.1.3	Reduced values for functional insulation	See 5.3.4	Pass
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage	Evaluated in R/C power supply.	N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances	Evaluated in R/C power supply.	Pass
2.10.3.1	General		Pass
2.10.3.2	Mains transient voltages		N/A

	a) AC mains supply		N/A
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits	Evaluated in R/C power supply.	Pass
2.10.3.4	Clearances in secondary circuits	See 5.3.4.	Pass
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply		N/A
2.10.3.7	Transients from d.c. mains supply		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
2.10.4	Creepage distances	Evaluated in R/C power supply.	Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		N/A
	CTI tests		-
2.10.4.3	Minimum creepage distances		N/A
2.10.5	Solid insulation		N/A
2.10.5.1	General		N/A
2.10.5.2	Distances through insulation		N/A
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material - General		N/A
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs)		-
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material - standard test procedure		N/A
	Electric strength test		-
2.10.5.10	Thin sheet material - alternative test procedure		N/A
	Electric strength test		-
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A

	Working voltage.....:		N/A
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	c) Compliance with Annex U		N/A
	Two wires in contact inside wound component; angle between 45° and 90°		N/A
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test.....:		-
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage.....:		N/A
	- Basic insulation not under stress		N/A
	- Supplementary, reinforced insulation		N/A
2.10.6	Construction of printed boards		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs).....:		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A
3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass

3.1.1	Current rating and overcurrent protection		Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation.	Pass
3.1.4	Insulation of conductors		Pass
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

3.2	Connection to mains supply		Pass
3.2.1	Means of connection	The unit is provided with an appliance inlet.	Pass
3.2.1.1	Connection to an a.c. mains supply		Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm).....:		-
3.2.4	Appliance inlets		Pass
3.2.5	Power supply cords	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	Pass
3.2.5.1	AC power supply cords		Pass
	Type	See table 1.5.1 for details.	-
	Rated current (A), cross-sectional area (mm ²), AWG	See table 1.5.1 for details.	-
3.2.5.2	DC power supply cords		N/A
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		Pass
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g)		-
	Radius of curvature of cord (mm).....		-
3.2.9	Supply wiring space		N/A

3.3	Wiring terminals for connection of external conductors		N/A
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3.4	Disconnection from the mains supply		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	Inlet.	Pass
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		Pass
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		Pass

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

4.2	Mechanical strength		Pass
4.2.1	General		Pass
	Rack-mounted equipment		N/A
4.2.2	Steady force test, 10 N		Pass
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	No hazards as a result of the 250 N test.	Pass
4.2.5	Impact test		Pass
	Fall test		Pass
	Swing test		N/A
4.2.6	Drop test; height (mm)		N/A
4.2.7	Stress relief test	70 degree C	Pass
4.2.8	Cathode ray tubes		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 are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N)		N/A
4.3.3	Adjustable controls	The equipment does not have a voltage selector	N/A
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances over supplementary or reinforced insulation is likely to occur.	Pass
4.3.5	Connection by plugs and sockets	IEC 60083 or IEC 60320 type connectors not used for SELV circuits.	N/A
4.3.6	Direct plug-in equipment		N/A
	Torque		N/A
	Compliance with the relevant mains plug standard:		N/A
4.3.7	Heating elements in earthed equipment	The equipment does not have any heating elements.	N/A
4.3.8	Batteries	Battery is protected against charging current by multiple components. See Table 1.5.1.	Pass

	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		Pass
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		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 dust or employ powders, liquids or gases.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquids.	N/A
4.3.12	Flammable liquids	The equipment does not use any flammable liquids.	N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation	The equipment does not generate ionizing radiation or contain flammable liquids or gases.	Pass
4.3.13.1	General		Pass
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		-
	Measured high-voltage (kV)		-
	Measured focus voltage (kV)		-
	CRT markings		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	This product contains only visible indicator LEDs (Class 1) operating in the range of 400 - 700 nm wavelength. No IEC60825-1 evaluation was deemed necessary. Additional review may be required at the discretion of the accepting NCB. Approved class 1 laser tranceiver used.	Pass
4.3.13.5.1	Lasers (including laser diodes)		Pass
	Laser class	(For indicator LEDs, see above	-

		statement.)	
4.3.13.5.2	Light emitting diodes (LEDs)		Pass
4.3.13.6	Other types		N/A

4.4	Protection against hazardous moving parts		Pass
4.4.1	General		Pass
4.4.2	Protection in operator access areas.....:		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		Pass
4.4.5.1	General		Pass
	Not considered to cause pain or injury. a)	comply with a. m=0.086Kg, r=35.75mm, N=4500RPM, K=1335.447	Pass
	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c).....:		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning.....:		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning.....:		N/A

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

		energy.	
	Dimensions (mm)	See enclosure 4-01for opening details.	-
4.6.2	Bottoms of fire enclosures	No openings within the 5 degree projection of internal components requiring a fire enclosure.	Pass
	Construction of the bottom, dimensions (mm)	See enclosure 4-01for opening details.	-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm)		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks)		-

4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame		Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure covers all parts except as noted in 4.7.2.2.	Pass
4.7.2.2	Parts not requiring a fire enclosure	Plugs and connectors forming part of a power supply cord or interconnecting cable.	Pass
4.7.3	Materials		Pass
4.7.3.1	General		Pass
4.7.3.2	Materials for fire enclosures	v-1 for plastic panel enclosure	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures	Connectors are made of materials of Class V-2 minimum.	Pass
4.7.3.4	Materials for components and other parts inside fire enclosures	PWBs are rated min. V-1. See Table 1.5.1 for material information. Internal wiring is UL Recognized, marked VW-1 or FT-1 and strapped by	Pass

		individual cable ties (where needed).	
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in 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		Pass
5.1.2	Configuration of equipment under test (EUT)		Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Single phase equipment intended only for connection to star TN or TT system.	Pass
5.1.4	Application of measuring instrument	Tested using D.1 measuring instrument.	Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements		Pass
	Supply voltage (V)	264V/60Hz	-
	Measured touch current (mA)	See Table 5.1.	-
	Max. allowed touch current (mA)	3.5 mA for earthing terminal, 0.25mA for unearthed part.	-
	Measured protective conductor current (mA).....	--	-
	Max. allowed protective conductor current (mA).....	--	-
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General.....		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V)		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)		-
5.1.8.2	Summation of touch currents from telecommunication networks		N/A

	a) EUT with earthed telecommunication ports		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	Electric strength		Pass
5.2.1	General		Pass
5.2.2	Test procedure		Pass

5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation		N/A
5.3.2	Motors	Fan motor evaluated as part of component evaluation.	N/A
5.3.3	Transformers	Evaluated in R/C power supply.	N/A
5.3.4	Functional insulation	Functional insulation complies with the requirement (c).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE		N/A
5.3.7	Simulation of faults		Pass
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No fire, emission of molten metal or deformation was noted during the tests.	Pass
5.3.9.1	During the tests	No fire, emission of molten metal or deformation was noted during the tests.	Pass
5.3.9.2	After the tests	Electric Strength tests performed after abnormal and fault tests.	Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
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6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
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6.3	Protection of the telecommunication wiring system from overheating		N/A
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7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
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A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		Pass
D.1	Measuring instrument		Pass
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		N/A
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		Pass
	Metal(s) used.....:	Suitable materials are used. Complies with Table J.	-
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		Pass
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A

L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		Pass
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
P	ANNEX P, NORMATIVE REFERENCES		Pass
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		Pass
V.1	Introduction		Pass
V.2	TN power distribution systems		N/A
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)	N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)	Pass
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)	N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION	N/A
CC	ANNEX CC, EVALUATION OF INTEGRATED CIRCUIT (IC) CURRENT LIMITERS	N/A
DD	ANNEX DD, REQUIREMENTS FOR THE MOUNTING MEANS OF RACK-MOUNTED EQUIPMENT	N/A
EE	ANNEX EE, HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS	N/A

1.5.1	TABLE: list of critical components					Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition or year)	mark(s) of conformity ¹⁾	
01. Metal Enclosure part	-	-	Metal, details see enclosure 4-02	--	--, --	
02. Plastic enclosure part	NINGBO LG YONGXING CHEMICAL CO LTD	FR-500	V-1 or better, Min.0.8mm thickness.	UL94 UL746C	UL, --	
03. Internal plastic	Interchangeable	Interchangeable	V-2 or better	UL94 UL746C	UL, --	
04. Internal power supply	DELTA ELECTRONICS INC	DPS-220TB D	Input: 100-240 Vac, 4A, 50-60 Hz, Output: +12 Vdc, 17 A, Tma=55 degree C	UL/IEC/EN 60950-1 2nd Edition	UL, --	
06. SELV connector	Interchangeable	Interchangeable	Metal/Plastic	UL 498, UL 1977,	UL, --	
06a. SELV connector (Alternate)	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated V-2 minimum.	UL 94, UL 746C	UL, --	
07. Interconnecting Cable (Optional)	Interchangeable	Interchangeable	Minimum 80 degree C, 60V, maximum 3.05m long, jacketed, rated VW-1 or FT-1.	UL 758	UL, --	
08. Internal Wiring (Secondary, SELV circuit)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or surface marked "VW-1" or "FT-1". Rated minimum. 80 degree C, 60 V.	UL 758	UL, --	
09. Internal metal	-	-	Metal	--	--, --	
11. Insulating Tubing / Sleeving (Optional)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1 or FT-1, 105 degree C, 60V	UL 224, UL 1441	UL, --	
12. Label	Interchangeable	Interchangeable	Minimum 70 degree C, suitable for affixed material.	UL 969	UL, --	

13. PWB	Interchangeable	Interchangeable	V-1 or better, minimum 105 degree C	UL 796	UL, --
14. Fan	ADDA CORPORATION	AD08012XB257 B04	12Vdc, 0.45A, MIN. 56.83CFM, total two fans.	UL 507	UL, --
15. RTC battery	MAXELL, LTD	CR2032	Max Abnormal Charging Current: 10mA; Max Abnormal Charging Voltage, 12Vdc	UL1642	UL, --
16. PTC for +12V and CTRL_12V	LITTELFUSE INC	1812L260/12	12Vdc max., I _h =2.6 A, I _t =5.0 A, CA=1(106), 2, 3, 4	UL1434	UL, --
17. IC for USB 3.0	SILERGY TECHNOLOGY	SY6288CAAC	2.5-5.5 Vdc; Continuous Current Rating: 2.0 A; Protection Current Rating: 3.7A	UL2367	UL, --
18. IC for HDMI1, HDMI2	DIODES INC	AP2331	2.7-5.2 Vdc; Continuous Current Rating: 0.2 A; Protection Current Rating: 0.5A	UL2367	UL, --
20. H.D.D (Max. 8 provided) (optional)	Interchangeable	Interchangeable	12Vdc, maximum 0.75A; 5Vdc, maximum 0.75A	UL 60950-1 2nd	UL, --
21. Heatsink on main board	-	-	Aluminum, See enclosure 4-01 for details.	-	-, -
Supplementary information: ¹) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

1.5.1	TABLE: Opto Electronic Devices			N/A
Manufacturer				
Type				
Separately tested				
Bridging insulation				
External creepage distance				
Internal creepage distance				
Distance through insulation				
Tested under the following conditions				
Input				
Output				
supplementary information:				
Additional types may be described in Enclosure - Miscellaneous				

1.6.2	TABLE: Electrical data (in normal conditions)					Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status
90Vac/50HZ	1.11	--	99.92	F1	1.11	Maximum normal load
90Vac/60HZ	1.11	--	99.66	F1	1.11	Maximum normal load
100Vac/50HZ	1.01	3.0	100.18	F1	1.01	Maximum normal load
100Vac/60HZ	1.00	3.0	99.48	F1	1.00	Maximum normal load
240Vac/50HZ	0.45	3.0	95.97	F1	0.45	Maximum normal load
240Vac/60HZ	0.46	3.0	96.50	F1	0.46	Maximum normal load
264Vac/50HZ	0.42	--	95.86	F1	0.42	Maximum normal load
264Vac/60HZ	0.44	--	94.00	F1	0.44	Maximum normal load
supplementary information:						
Maximum normal load: Connect to computer, reading and write HDD*8, operated continuously, and all USB ports load the max. rating(2.5W for USB 2.0 port, 4.5W for USB 3.0 port),12VDC load 1A.						

2.1.1.5 c) 1)	TABLE: Max. V, A, VA test					N/A
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)		
supplementary information:						

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

2.2	TABLE: Evaluation of voltage limiting components in SELV circuits					N/A
Component (measured between)			max. voltage (V) (normal operation)		Voltage limiting components	
			V peak	V d.c.		

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
supplementary information:	
have been evaluated in certification of PSU	

2.5	TABLE: Limited power sources					Pass
Circuit output tested:						
Note: Measured Uoc (V) with all load circuits disconnected:						
Components	Sample No.	Uoc (V)	Isc (A)		VA	
			Meas.	Limit	Meas.	Limit

USB 2.0 up	1586939	5.02	2.97	8	9.68	100
USB 2.0 down	1586939	5.02	2.97	8	9.58	100
ESATA port	1586939	0	0	8	0	100
USB 3.0 up	1586939	5.01	2.99	8	12.03	100
USB 3.0 down	1586939	5.01	3.00	8	12.14	100
HDMI1.2	1586939	5.01	0.39	8	1.36	100
HDMI1.4	1586939	4.98	0	8	0	100
HDMI1.5	1586939	4.98	0	8	0	100
HDMI2.2	1586939	5.01	0.39	8	1.33	100
HDMI2.4	1586939	4.98	0	8	0	100
HDMI2.5	1586939	4.98	0	8	0	100
HDMI3.2	1586939	5.01	0.41	8	1.41	100
HDMI3.4	1586939	4.98	0	8	0	100
HDMI3.5	1586939	4.98	0	8	0	100
VGA 1	1586939	4.85	0	8	0	100
VGA 2	1586939	4.85	0	8	0	100
RS232	1586939	4.92	0	8	0	100
1-16 port	1586939	0	0	8	0	100
A	1586939	4.62	0	8	0	100
NO1	1586939	0	0	8	0	100
C1	1586939	0	0	8	0	100
NO2	1586939	0	0	8	0	100
C2	1586939	0	0	8	0	100
NO3	1586939	0	0	8	0	100
C3	1586939	0	0	8	0	100
NO4	1586939	0	0	8	0	100
C4	1586939	0	0	8	0	100
NO5	1586939	0	0	8	0	100
C5	1586939	0	0	8	0	100
NO6	1586939	0	0	8	0	100
C6	1586939	0	0	8	0	100
NO7	1586939	0	0	8	0	100
C7	1586939	0	0	8	0	100
NO8	1586939	0	0	8	0	100

C8	1586939	0	0	8	0	100
+12V	1586939	11.81	5.20	8	55.69	100
W	1586939	0	0	8	0	100
RJ45 1~4	1586939	0	0	8	0	100
supplementary information:						
Sc=Short circuit, Oc=Open circuit						

2.10.2	TABLE: Working voltage measurements				N/A
Location		RMS voltage (V)	Peak voltage (V)	Comments	
supplementary information:					

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						N/A
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:							
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Basic/supplementary:							
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Reinforced:							
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
supplementary information:							

2.10.5	TABLE: Distance through insulation measurements					N/A
Distance through insulation (DTI) at/of:		Upeak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
supplementary information:						
have been evaluated in certification of PSU						

4.3.8	TABLE: Batteries								Pass		
The tests of 4.3.8 are applicable only when appropriate battery data is not available.											
Is it possible to install the battery in a reverse polarity position											
		Non-rechargeable batteries		Rechargeable batteries							
		Discharging		Un-intentional charging		Charging		Discharging		Reversed charging	
		Meas. current	Manuf. specs.			Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	Meas. current	Manuf. specs.
Test results:										Verdict	
- Chemical leaks										Pass	
- Explosion of the battery										Pass	
- Emission of flame or expulsion of molten metal										Pass	
- Electric strength tests of equipment after completion of tests										N/A	
supplementary information:											
The battery in circuit of this Intelligent Video Surveillance Server has no possibility of reverse charging, so no need of test due to engineering judgement.											

4.3.8	TABLE: Batteries			Pass
Battery category (lithium, NiMh, NiCad, lithium ion, etc.)		lithium		
Manufacturer		MAXE LL, LTD		
Type / model		CR203 2		
Voltage		3.0 to 3.4 V		
Capacity (mAh)		220		
Tested and Certified by (incl. Ref. No.)		UL		
Circuit protection diagram (refer to indicated supplement of Enclosure - Miscellaneous)		--		

MARKINGS AND INSTRUCTIONS (1.7.12, 1.7.15)			
Location of replaceable battery	Mainboard		
Language(s)	English		
Close to the battery	NO		
In the servicing instructions	YES		
In the operating instructions	YES		
supplementary information:			
Additional devices may be described in Enclosure - Miscellaneous			

4.5	TABLE: Thermal requirements						Pass
	Supply voltage (V) :						---
	Ambient Tmin (C) :						---
	Ambient Tmax (C) :		Shift to 55 degree C		Shift to 55 degree C		---

Maximum measured temperature T of part/at:				T (C) #1	T (C) #2	T (C) #3	T (C) #4	T (C) #5	Allowed Tmax (C)
-				90Vac /60HZ	90Vac /60HZ	264Va c/50H Z	264Va c/50H Z	-	-
For power supply:				-	-	-	-	-	-
1 T1 core				46.2	77.6	46.2	77.6	-	110
2 IC501				44.3	75.7	42.8	74.2	-	100
3 FL1 coil				38.4	69.8	32.5	63.9	-	100
4 BD1				48.0	79.4	36.3	67.7	-	130
5 Line pin of inlet socket				31.4	62.8	30.8	62.2	-	70
6 L101 coil				54.9	86.3	55.8	87.2	-	130
6 T2 coil				38.2	69.6	36.8	68.2	-	110
7 T901 core				34.8	66.2	33.5	64.9	-	110
8 RTC battery(main board)				30.0	61.4	29.9	61.3	-	100
9 PWB near RTC battery(main board)				31.1	62.5	30.5	61.9	-	105
10 PWB near T1(main board)				35.0	66.4	35.0	66.4	-	105
11 PWB between heat shrink(main board)				33.3	64.7	33.3	64.7	-	105
12 PWB center of bottom side(main board)				34.0	65.4	34.0	65.4	-	105
13 PWB near C44 (RS232 board)				30.3	61.7	30.3	61.7		105
14 PWB near heat shrink, bottom side (RS232 board)				31.9	63.3	31.9	63.3	-	105
15 Metal enclosure outside near power supply				30.0	61.4	29.6	61.0	-	70
16 Plastic panel outside				24.0	55.4	24.0	55.4	-	95
17 AC Inlet of power supply				33.3	64.7	32.5	63.9	-	70
18 Internal wiring out of power supply				29.1	60.5	29.1	60.5	-	80
19 Ambient				23.6	55.0	23.6	55.0	-	-
Temperature T of winding:		t1 (C)	R1 (ohm)	t2 (C)	R2 (ohm)	T (C)	Allowed Tmax (C)		Insulation class
supplementary information:									

4.5.5	TABLE: Ball pressure test of thermoplastic parts			N/A
	allowed impression diameter (mm) :	less than or equal to 2.0		---
part		test temperature (C)	impression diameter (mm)	
supplementary information:				

4.7	TABLE: Resistance to fire					Pass
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
supplementary information:						
see table 1.5.1 for details						

5.1	TABLE: Touch current measurement			Pass
Measured between		Measured (mA)	Limit (mA)	Comments/conditions
Earthing		0.32	3.5	“e” – O; P1 – N; Pri S. - On
Earthing		0.32	3.5	“e” – O; P1 – R; Pri S. - On
Earthing		0.46	3.5	“e” – O; P1 – N; Pri S. - Off
Earthing		0.18	3.5	“e” – O; P1 – R; Pri S. - Off
Plastic panel		0	0.25	“e” – C; P1 – N; Pri S. - On
Plastic panel		0	0.25	“e” – C; P1 – R; Pri S. - On
Plastic panel		0	0.25	“e” – C; P1 – N; Pri S. - Off
Plastic panel		0	0.25	“e” – C; P1 – R; Pri S. - Off
Data ports		0	0.25	“e” – C; P1 – N; Pri S. - On
Data ports		0	0.25	“e” – C; P1 – R; Pri S. - On
Data ports		0	0.25	“e” – C; P1 – N; Pri S. - Off
Data ports		0	0.25	“e” – C; P1 – R; Pri S. - Off
supplementary information:				
tested at 264Vac/60Hz				

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			Pass
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--		--	--	--
Functional:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--		--	--	-
Basic/supplementary:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Primary to metal enclosure		AC	2000	No
Reinforced:				
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Primary to secondary		AC	3000	No
Primary to Plastic enclosure wrapped with foil		AC	3000	No
supplementary information:				

5.3	TABLE: Fault condition tests			Pass
	Ambient temperature (C) :			---
	Power source for EUT: Manufacturer, model/type, output rating :			---

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
1.Opening	Blocked	240Vac /60HZ	1h05 m	-	0.658	Unit normal operation NC,NT,NB The maximum temperature of key components: T1 core: 64.3 degree C at ambient 23.2 degree C BD1: 50.7 degree C at ambient 23.2 degree C L101 coil: 69.0 degree C at ambient 23.3 degree C
2 Power supply Fan	Stalled	240Vac /60HZ	41m	-	0.664	Unit normal operation NC,NT,NB The maximum temperature of key components: T1 core: 28.5 degree C at ambient 23.3 degree C BD1: 53.1 degree C at ambient 23.3 degree C L101 coil: 65.7 degree C at ambient 23.3 degree C
3 System fan	Stalled	240Vac /60HZ	1h41 m	-	0.656	Unit normal operation NC,NT,NB The maximum temperature of key components: T1 core: 56.0 degree C at ambient 23.4 degree C BD1: 43.2 degree C at ambient 23.4 degree C L101 coil: 63.9 degree C at ambient 23.3 degree C
supplementary information:						
Results Key: IP = Internal protection operated (component indicated) CT = Constant temperatures were obtained TW = Transformer winding opened CD = Components damaged (damaged components indicated) NB = No indication of dielectric breakdown YB = Dielectric breakdown (time and location indicated) NC = Cheesecloth remained intact YC = Cheesecloth charred or flamed NT = Tissue paper remained intact YT = Tissue paper charred or flamed						

C.2	TABLE: Transformers							N/A
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)		Required distance thr. insul. (2.10.5)
Loc.	Tested insulation				Test voltage / V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Transformer type number			Enclosure - Miscellaneous ID					

supplementary information:
have been evaluated in certification of PSU

DRAFT

Enclosure

National Differences

Austria**
Belarus*
Belgium**
Bulgaria**
Czech Republic**
Denmark
Finland
France**
Germany
Greece**
Group
Hungary**
Italy**
Netherlands**
Norway
Poland**
Romania**
Serbia**
Slovakia**
Slovenia**
Sweden
Switzerland
USA / Canada
Ukraine*
United Kingdom

* No National Differences
Declared

** Only Group Differences

Denmark - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.2.4.1	In Denmark, certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.		N/A
1.7.2.1	<p>CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows: : "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord."</p>		N/A
1.7.5	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment, the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.		N/A
1.7.5	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a. (Heavy Current Regulations, Section 107-2-D1)		N/A
3.2.1.1	<p>Supply cord of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contact or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.</p>		N/A

Finland - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when		N/A

	a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"		N/A
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.3	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE EQUIPMENT TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the		N/A

	<p>component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. <p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994 (EN 60384-14:2005), subclass Y2.</p> <p>A capacitor classified Y3 according to EN 132400 [EN 60384-14:2005], may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14]. 		
6.1.2.2	<p>The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication center, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.</p>		N/A
7.2	<p>Requirements according to this annex 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.</p>		N/A

Germany - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.7.2.1	<p>If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade</p>		N/A

	consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.		
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Group - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Group Differences also includes the requirements in A11:2009 and A12:2011		N/A
1.3	A12:2011 - In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010		N/A
1.5.1	Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC		N/A
1.7.2.1	Delete NOTE Z1 and the addition for Portable Sound System Add the following Zx clauses and annex to the existing standard and amendments		N/A
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, 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.		N/A
2.7.2	Void		N/A
3.2.3	Delete the NOTE and conduit sizes in parentheses		N/A

	in Table 3A		
3.2.5.1	<p>Add the following Note: NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD.</p> <p>In Table 3B, replace the first four lines by the following: Up to and including 6 0.75 a) Over 6 up to and including 10 0.75 b) 1.0 Over 10 up to and including 16 1.0 c) 1.5</p> <p>In the conditions applicable to table 3B, delete the words "in some countries" in condition a). In Note 1, applicable Table 3B, to delete the second sentence.</p>		N/A
3.3.4	<p>In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to by 4"</p> <p>Delete the fifth line: conductor sizes for 13 to 16A.</p>		N/A
4.3.13.6	<p>Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.</p>		N/A
H	<p>Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE - These values appear in Directive 96/29/Euratom. Delete NOTE 2.</p>		N/A
Zx	Protection against excessive sound pressure from personal music players		N/A
Zx.1	General - This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players.		N/A

	<p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> - is designed to allow the user to listen to recorded or broadcast sound or video; and - primarily uses headphones or earphones that can be worn in or on or around the ears; and - allows the user to walk around while in use. <p>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment.</p> <p>A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> - while the personal music player is connected to an external amplifier; or - while the headphones or earphones are not used. <p>NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> - hearing aid equipment and professional equipment; <p>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.</p> <ul style="list-style-type: none"> - analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. <p>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		
Zx.2	Equipment Requirements - No safety provision is		N/A

	<p>required for equipment that complies with the following:</p> <ul style="list-style-type: none"> - equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and - a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" as described in EN 50332-1. <p>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx.</p> <p>All other equipment shall:</p> <ul style="list-style-type: none"> a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off.</p> <ul style="list-style-type: none"> d) have a warning as specified in Zx.3; and e) not exceed the following: <ul style="list-style-type: none"> 1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening 		
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	<p>device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term LAeq,T) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song.</p> <p>NOTE 4 Classical music typically has an average sound pressure (long term LAeq,T) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.</p>		
Zx.3	<p>Warning - The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <ul style="list-style-type: none"> - the symbol of Figure 1 (IEC 60417-6044) with a minimum height of 5 mm; and - the following wording, or similar: “To prevent possible hearing damage, do not listen at high volume levels for long periods.” <p>Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level</p>		N/A
Zx.4	Requirements for Listening devices (headphones and earphones)		N/A
Zx.4.1	<p>Wired listening devices with analogue input With 94 dBA sound pressure output LAeq,T, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV.</p> <p>This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control).</p> <p>NOTE The values of 94 dBA – 75 mV correspond</p>		N/A

	with 85dBA – 27 mV and 100 dBA – 150 mV.		
Zx.4.2	<p>Wired listening devices with digital input</p> <p>With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA.</p> <p>This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		N/A
Zx.4.3	<p>Wireless listening devices</p> <p>In wireless mode:</p> <ul style="list-style-type: none"> - with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and - respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and - with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA. <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
Zx.5	<p>Measurement Methods</p> <p>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

Norway - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Norway has national differences declared for 60950-1:2005, Am 1:2009 (below).		N/A
1.2.13.14	For requirements see 1.7.2.1 and 7.3.		N/A
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I		N/A

	PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		
1.5.8	Due to the IT power system used (see annex V, figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparatet må tilkoples jordet stikkontakt"		N/A
1.7.2.1	<p>In Norway, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."</p> <p>NOTE: In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway): "Utstyr som er koplet</p>		N/A

	til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplest utstyr - og er tilkoplest et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel-TV nettet."		
2.2.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE EQUIPMENT TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11		N/A

	<p>with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and</p> <p>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.</p> <p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 123400 [EN 60384-14:2005], may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14]. 		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	Refer to EN 60728-11:2005 for installation conditions		N/A
7.3	Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply.		N/A

Sweden - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.2.13.14	For requirements see 1.7.2.1 and 7.3.		N/A
1.5.1	(Ordinance (1990:944)) Add NOTE: Switches		N/A

	containing mercury are not permitted.		
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparaten skall anslutas till jordat uttag"		N/A
1.7.2.1	<p>In Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."</p> <p>NOTE: In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Swedish: "Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För</p>		N/A

	att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet."		
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).		N/A

	<p>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 132400 [EN 60384-14:2005], may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14]. 		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply.		N/A

Switzerland - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Includes update from 60950-1:2005, AC:2011		N/A
1.5.1	Ordinance on environmentally hazardous substances SR 814.81, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury. Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A
1.7.13	Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15, Batteries - Annex 2.15 of SR 814.81 applies for batteries containing cadmium and mercury. Note: Ordinance relating to environmentally hazardous substances, SR 814.013 of 1986-06-09 is no longer in force and superseded by SR 814.81 of 2009-02-01		N/A

	(ChemRRV).		
3.2.1.1	<p>Supply cords of portable electrical appliances having a rated current not exceeding 10 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets:</p> <ul style="list-style-type: none"> - SEV 6533-2:2009, Plug type 11, L+N, 250 V, 10 A - SEV 6534-2:2009, Plug type 12, L+N+PE, 250 V, 10 A - SEV 6532-2:2009, Plug type 15, 3P+N+PE, 250/400 V, 10 A <p>Supply cords of portable electrical appliances having a rated current not exceeding 16 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets:</p> <ul style="list-style-type: none"> - SEV 5933-2:2009, Plug type 21, L+N, 250 V, 16 A - SEV 5934-2:2009, Plug type 23, L+N+PE, 250 V, 16 A - SEV 5932-2:2009, Plug type 25, 3P+N+PE, 230/400 V, 16 A <p>NOTE: 16 A plugs are not often used in Swiss domestic installation systems.</p>		N/A
3.2.4	Requirements according to this annex 3.2.1.1 apply.		N/A

USA / Canada - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A

1.4.14	For PLUGGABLE EQUIPMENT TYPE A, the protection in the installation is assumed to be 20 A.		Pass
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.		Pass
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		Pass
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		Pass
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.		Pass
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of		N/A

	equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2.1	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		N/A
2.6.3.3	For PLUGGABLE EQUIPMENT TYPE A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A		Pass
2.6.3.3	The first column on Table 2D requirement: "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		N/A
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A

2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.12	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U.		N/A
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		Pass
3.1.1	All interconnecting cables protected against overcurrent and short circuit.		Pass
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.		Pass
3.2.1	Permitted use for flexible cords and plugs.		Pass
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		Pass
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing.		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the		N/A

	equipment.		
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) and not less than 150 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		Pass
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		Pass
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A

3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.		N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.		N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm ²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.5	First column of Table 3E revised to require "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in		N/A

	Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5.1	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m ³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.9 m ² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.7	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		N/A
5.3.7	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.9.1	Test interrupted by opening of wire or trace subject		N/A

	to certain conditions.		
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.		N/A
NAD	Acoustic pressure from an ear piece less than 140 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets and insert earphones, for long duration disturbances.		N/A
NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

EE.5	UL articulated accessibility probe (Fig. EE.3) required for assessing accessibility to document/media shredders, instead of Figure 2A test finger.		N/A
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United Kingdom - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
3.2.1.1	Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a "standard plug" in accordance with Statutory Instrument 1786: 1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE: "Standard plug" is defined in SI 1786: 1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
3.2.5.1	A power supply cord with conductor of 1.25 mm ² is allowed for equipment with a rated current over 10A and up to and including 13A.		N/A
3.3.4	The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is 1.25 mm ² to 1.5 mm ² nominal cross-sectional area.		N/A
4.3.6	The torque test is performed using a socket outlet complying with BS 1363 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125°C.		N/A
4.3.6	Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Marking Plate	13-01	Marking plate
Photographs	3-01	Side view 1
Photographs	3-02	Top view
Photographs	3-03	Side view 2
Photographs	3-04	Back view
Photographs	3-05	Front view
Photographs	3-06	Bottom view
Photographs	3-07	Internal view 1
Photographs	3-08	Internal view 2
Photographs	3-09	Front view of main board
Photographs	3-10	Back view of main board
Photographs	3-11	Front view of RS232 board
Photographs	3-12	Back view of RS232 board
Diagrams	4-01	Heatsink spec
Diagrams	4-02	Enclosure spec
Diagrams	4-03	Plastic part of the front of encluse

Marking Plate ID 13-01

Intelligent Video Surveillance Server
DHI-IVSS7008

100-240V ~, 50-60Hz, 3A

P/N: 1.0.01.23.12076



S/N: 3M05E17YAJ6EB17

MADE IN CHINA

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

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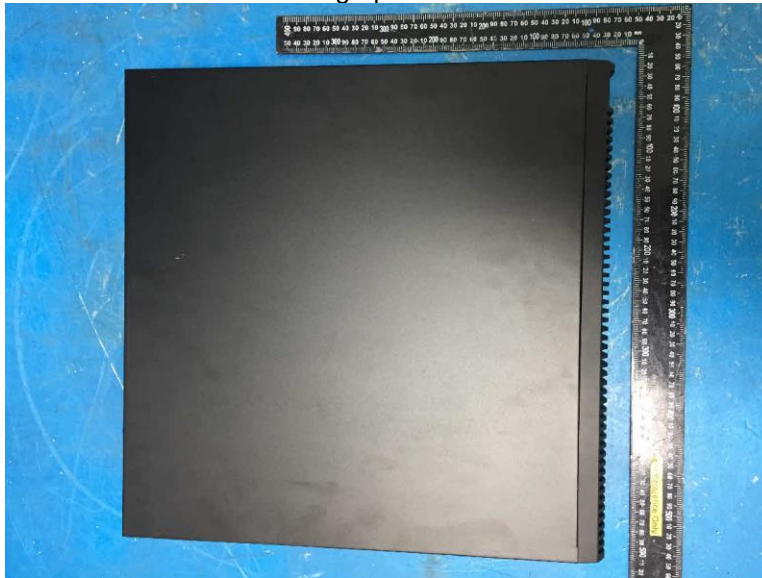


DRAFT

Photographs ID 3-01



Photographs ID 3-02



Photographs ID 3-03



Photographs ID 3-04



Photographs ID 3-05



Photographs ID 3-06



Photographs ID 3-07



Photographs ID 3-08



Photographs ID 3-09



Photographs ID 3-10



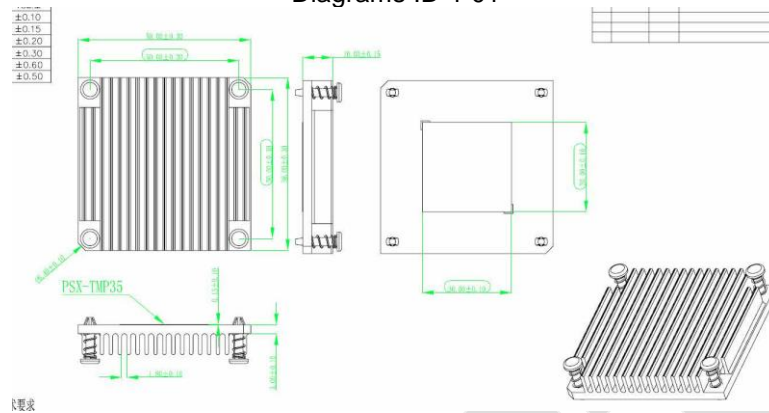
Photographs ID 3-11



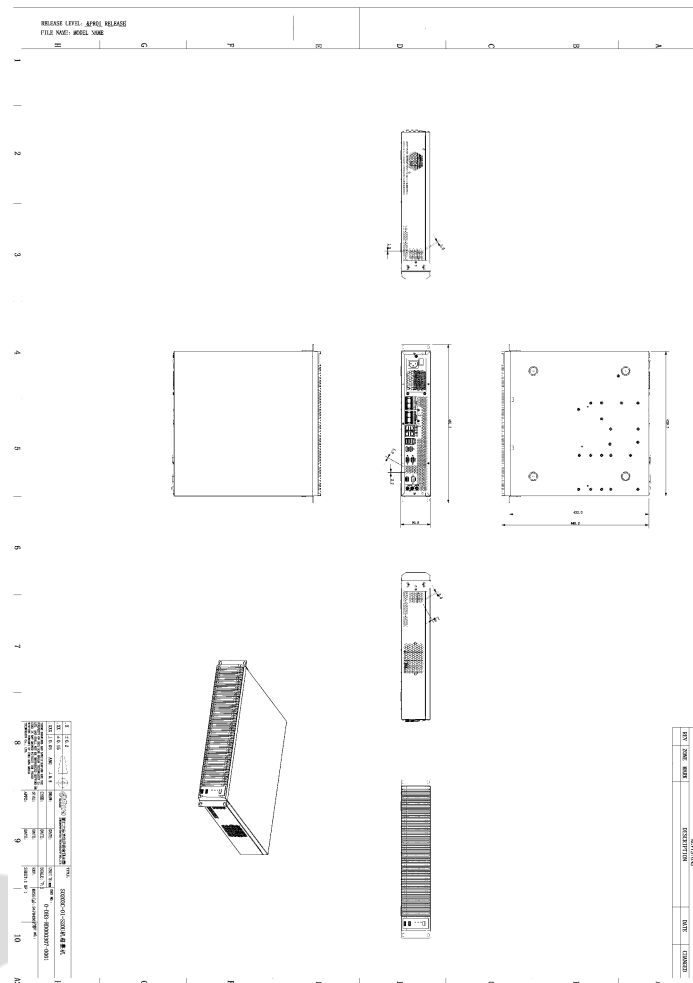
Photographs ID 3-12



Diagrams ID 4-01



Diagrams ID 4-02



Diagrams ID 4-03

