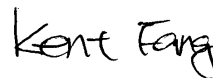


TEST REPORT
IEC 60950 / EN 60950
Safety of information technology equipment

Report Reference No.....: L312807

Tested by (+ signature).....: Kent Fang



Approved by (+ signature): Tina Chou



Date of issue.....: January 30, 2003

Contents: 39 pages

Testing laboratory

Name: Sporton International Inc. BTL Group.

Address.....: 4F, No.339, Hsin Hu 2nd Rd., Nei Hu Dist, Taipei 114, Taiwan. R.O.C.

Testing location.....: Taipei, Taiwan, Republic of China

Applicant

Name: D-Link Corp

Address.....: No.8, Li-Shing Rd. VII, Science-Based Industrial Park, His-Chu, Taiwan, R.O.C

Test specification

Standard: IEC 60950:1999

EN 60950:2000

Test procedure: Service of CE Marking in LVD

Procedure deviation.....: N.A.

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

Test Report Form/blank test report

Test Report Form No.....: 60950-2000

Master TRF.....: Dated 2000-02

Test item

Description.....: 16 Port 10/100Mbps Gigabit Ethernet Switch

Trademark: D-Link trademark

Model and/or type reference.....: DGS-1016T (Class III)

Manufacturer.....: Same as applicant

Rating(s): i/p: 100-240VAC, 50/60Hz, 1.9A

Particulars: test item vs. test requirements

Equipment mobility : Movable
Operating condition..... : Continuous
Tested for IT power systems : Yes
IT testing, phase-phase voltage (V)..... : IT, 230V for Norway
Class of equipment..... : Class I
Mass of equipment (kg) : 3.6 kg
Protection against ingress of water..... : IPX0

Test case verdicts

Test case does not apply to the test object : N(.A.)
Test item does meet the requirement..... : P(ass)
Test item does not meet the requirement..... : F(ail)
Test case has not been checked : —

General remarks

“This report is not valid as a CB Test Report unless appended to a CB Test Certificate issued by a NCB, in accordance with IEC 60384-102”.

This report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item tested.

“(see Remark #)” refers to a remark appended to the report.

“(see Annex #)” refers to an annex appended to the report.

Throughout this report a point is used as the decimal separator.

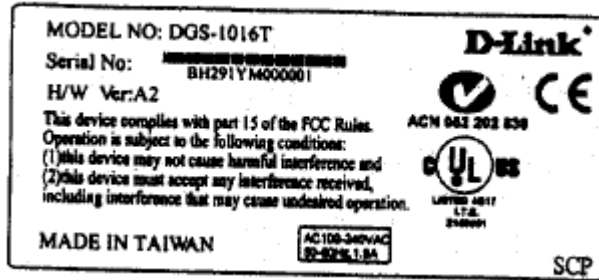
Comments:

Factory:

D-Link Corp

No.8, Li-Shing Rd. VII, Science-Based Industrial Park, His-Chu, Taiwan, R.O.C

Copy of marking plate:



IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
1.5.8	Components in equipment for IT power systems	Phase to earth designed in according to phase-to-phase working voltage. The Y2 type capacitor used in approved SPS between phase-to-earth are rated according.	P

1.6	Power interface		P
1.6.1	AC power distribution systems..... :	TN power system. IT power system for Norway.	P
1.6.2	Input current	Highest load according to 1.2.2.1 for this equipment is the operation with PC and data transferred. Results see appended table.	P
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N
1.6.4	Neutral conductor	The neutral is not identified in the equipment. Basic insulation for rated voltage between earthed parts and primary phases.	P

1.7	Marking and instructions		P
1.7.1	Power rating	See below.	P
	Rated voltage(s) or voltage range(s) (V)	100-240VAC	P
	Symbol for nature of supply for d.c. :	Mains from AC source	N
	Rated frequency or frequency range (Hz)	50-60Hz	P
	Rated current (mA or A)	1.9A	P
	Manufacturer's name/Trademark	D-Link trademark	P
	Type/model	DGS-1016T (Class III)	P
	Symbol of Class II	Class I equipment.	N
	Other symbols	Additional symbols or marking does not give rise to misunderstanding.	P
	Certification marks	See copy of marking plates for details.	N
1.7.2	Safety instructions	The user's manual contains information for operation, installation, servicing, transport, storage and technical data.	P
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
1.7.4	Supply voltage adjustment	Full range voltage design, no necessary adjustment.	N
1.7.5	Power outlets on the equipment	No power outlet.	N
1.7.6	Fuse identification	Fuse marking on the approved power supply.	P
1.7.7	Wiring terminals	See below.	N
1.7.7.1	Protective earthing and bonding terminals	Appliance inlet used.	N
1.7.7.2	Terminal for a.c. mains supply conductors	Not terminal.	N
1.7.8	Controls and indicators	See below.	—
1.7.8.1	Identification, location and marking	The marking and indication of the indicators are located that indication of function is clearly.	P
1.7.8.2	Colours	No safety involved for these indicator LEDs.	N
1.7.8.3	Symbols according to IEC 60417	Marking for rocker type switch is marked according to 60147-IEC-5007 circle for OFF).	P
1.7.8.4	Markings using figures	No figures used.	N
1.7.9	Isolation of multiple power sources	Only one supply of hazardous voltage.	N
1.7.10	IT power system	It shall be evaluated when submitted for Norway national approval.	N
1.7.11	Thermostats and other regulating devices	No thermostat provided.	N
1.7.12	Language	User's manual and rating marking are in English. Versions of other languages will be provided when submitted for national approval.	P
1.7.13	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge.	P
1.7.14	Removable parts	No removable parts provided.	N
1.7.15	Replaceable batteries	No batteries provided.	N
	Language		—

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
1.7.16	Operator access with a tool..... :	No operator accessible area which needs to be accessed by the use of a tool.	N
1.7.17	Equipment for restricted access locations :	Not limited for use in restricted access locations.	N

2	PROTECTION FROM HAZARDS	P
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2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	See below.	P
2.1.1.1	Access to energised parts	No access with test finger and test pin to any parts with only basic insulation to ELV or hazardous voltage. Any hazardous parts accessible are unlikely.	—
	Test by inspection	dto	P
	Test with test finger	dto	P
	Test with test pin	dto	P
	Test with test probe		N
2.1.1.2	Battery compartments..... :	No battery compartment.	N
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N
	Working voltage (V); distance (mm) through insulation		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N
2.1.1.5	Energy hazards	No energy hazard in operator access area. The connectors on the equipment is only for signal i/p and o/p on a low energy level.	P
2.1.1.6	Manual controls	No conductive shafts of operating knobs and handles.	N
2.1.1.7	Discharge of capacitor s in the primary circuit	No risk of electric shock. Done in the approval of the switching power supply.	N
	Time-constant (s); measured voltage (V)	dto	—
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N
2.1.3	Protection in restricted access locations	The unit is not limited to be used in restricted access locations.	N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

2.2	SELV circuits		P
2.2.1	General requirements	See below.	P
2.2.2	Voltages under normal conditions (V)..... :	Between any conductor of the SELV circuits 42.4V peak or 60Vd.c. are not exceeded.	P
2.2.3	Voltages under fault conditions (V)..... :	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71V peak and 120V d.c. were not exceed and SELV limits not for longer than 0.2 seconds .	P
2.2.3.1	Separation by double or reinforced insulation (method 1)	In accordance with method 1.	P
2.2.3.2	Separation by earthed screen (method 2)	In accordance with method 2.	P
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N
2.2.4	Connection of SELV circuits to other circuits..... :	See 2.2.2 and 2.2.3. No direct connection between SELV and any primary circuits.	N

2.3	TNV circuits <i>No TNV circuit.</i>		N
2.3.1	Limits		N
	Type of TNV circuits..... :		—
2.3.2	Separation from other circuits and from accessible parts		N
	Used insulation..... :		—
2.3.3	Separation from hazardous voltages		N
	Used insulation..... :		—
2.3.4	Connection of TNV circuits to other circuits		N
	Used insulation..... :		—
2.3.5	Test for operating voltages generated externally		N

2.4	Limited current circuits		N
2.4.1	General requirements		N
2.4.2	Limit values		N
	Frequency (Hz)..... :		—
	Measured current (mA)..... :		—
	Measured voltage (V)..... :		—

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

	Measured capacitance (μF)		—
2.4.3	Connection of limited current circuits to other circuits		N

2.5	Limited power sources		N
	Inherently limited output		N
	Impedance limited output		N
	Overcurrent protective device limited output		N
	Regulating network limited output under normal operating and single fault condition		N
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N
	Output voltage (V), output current (A), apparent power (VA)		—
	Current rating of overcurrent protective device (A)		—

2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing	All parts (chassis) are reliably connected to PE. Refer to 2.6.1a).	P
2.6.2	Functional earthing	Secondary functional earthing separated to primary by reinforced or double insulation.	P
2.6.3	Protective earthing and protective bonding conductors	PE conductors comply with 2.6.3.2 dash 2.	P
2.6.3.1	Size of protective earthing conductors	Power cord not provided.	N
	Rated current (A), cross-sectional area (mm^2), AWG.....		—
2.6.3.2	Size of protective bonding conductors	The PE bonding conductor is rated 300V, AWG 18 (0.75mm^2) at 105°C is equal to the phase conductors and comply with table 3B.	P
	Rated current (A), cross-sectional area (mm^2), AWG.....	dto	—
2.6.3.3	Rated current (A), type and nominal thread diameter (mm).....	1.9A, M4, comply with table 3E and with the test of 2.6.3.3.	P
	Resistance (Ω) of earthing conductors and their terminations, test current (A).....	(see appended table 2.6.3.3)	P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
2.6.3.4	Colour of insulation..... :	Green / yellow wire from inlet to chassis fixed by double crimp ring terminal, screw and spring-washer.	P
2.6.4	Terminals	Approved appliance inlet used.	P
2.6.4.1	Protective earthing and bonding terminals	Dto	P
	Rated current (A), type and nominal thread diameter (mm)..... :	Dto	—
2.6.4.2	Separation of the protective earthing conductor from protective bonding conductors	Dto	P
2.6.5	Integrity of protective earthing	Dto	P
2.6.5.1	Interconnection of equipment	Interconnecting equipment shall provide SELV only.	N
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No components in PE conductors.	P
2.6.5.3	Disconnection of protective earth	The inlet pins breaks first the PE pin last.	P
2.6.5.4	Parts that can be removed by an operator	Dto	P
2.6.5.5	Parts removed during servicing	Dto	P
2.6.5.6	Corrosion resistance	All part comprising the connections are plated and metal to metal which comply with annex J.	P
2.6.5.7	Screws for protective bonding	No such screw used.	P
2.6.5.8	Reliance on telecommunication network		N

2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	Equipment relies on 16A rated fuse or circuit breaker of the wall outlet installation protection of the building installation in regard to L to N short circuit. Overcurrent protection is provided by the built-in device fuse in approved power supply.	P
2.7.2	Faults not covered in 5.3	The protection devices are well dimensioned and mounted.	P
2.7.3	Short-circuit backup protection	The final system is considered to be pluggable equipment type A, the building installation is considered as providing short circuit protection.	P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
2.7.4	Number and location of protective devices	Overcurrent protection by one built-in fuse in approved power supply in approved power supply.	P
2.7.5	Protection by several devices	Only one provided.	N
2.7.6	Warning to service personnel.....	With reversible plug to the mains, hazardous voltage may be still presented in the equipment after the internal fuse opens. However, as it is considered that the plug to the mains will be disconnected during service work, no marking were requested.	P

2.8	Safety interlocks <i>No safety interlock.</i>		N
2.8.1	General principles		N
2.8.2	Protection requirements		N
2.8.3	Inadvertent reactivation		N
2.8.4	Fail-safe operation		N
2.8.5	Interlocks with moving parts		N
2.8.6	Overriding an interlock		N
2.8.7	Switches and relays in interlock systems		N
2.8.7.1	Contact gaps (mm)		N
2.8.7.2	Overload test		N
2.8.7.3	Endurance test		N
2.8.7.4	Electric strength test (V)		N
2.8.8	Mechanical actuators		N

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic material is not used.	P
2.9.2	Humidity conditioning	40°C, 95% R.H. for 120hrs.	P
2.9.3	Requirements for insulation	Insulation materials comply with sub-clauses 2.10, 4.5.1 and 5.2.	P
2.9.4	Insulation parameters	Both parameters were considered.	P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
2.9.5	Categories of insulation	Adequate levels of safety insulation are provided and maintained to comply with the requirements of this standard.	P

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See 2.10.3, 2.10.4, 2.10.5.	P
2.10.2	Determination of working voltage	<ul style="list-style-type: none"> ■ Unit was connected to a 240V TN power system ■ 2.10.10 not applied for 	P
2.10.3	Clearances	See below, Annex G was not considered.	P
2.10.3.1	General	Annex F and minimum clearances considered.	P
2.10.3.2	Clearances in primary circuit	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.3	Clearances in secondary circuits	See 5.3.4.	P
2.10.3.4	Measurement of transient levels	Normal transient voltage considered (overvoltage category II for primary circuit).	N
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4).	P
	CTI tests.....:	CTI rating for all materials of min. 100.	—
2.10.5	Solid insulation	See below.	N
2.10.5.1	Minimum distance through insulation	Photo couplers sued in approved power supply.	N
2.10.5.2	Thin sheet material	The thin sheet material used in main transformer of the approved power supply.	N
	Number of layers (pcs).....:	Dto	—
	Electric strength test	Dto	—
2.10.5.3	Printed boards.....:	Not applied for.	N
2.10.5.4	Wound components.....:	No wound components used.	N
2.10.6	Coated printed boards	No coated printed boards.	N
2.10.6.1	General		N
2.10.6.2	Sample preparation and preliminary inspection ..:		N
2.10.6.3	Thermal cycling.....:		N
2.10.6.4	Thermal ageing.....:		N
2.10.6.5	Electric strength test		N
2.10.6.6	Abrasion resistance test.....:		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
	Electric strength test		N
2.10.7	Enclosed and sealed parts.....:	No hermetically sealed component.	N
2.10.8	Spacings filled by insulating compound	Photo-coupler are approved components used in the approved power supply. No other components applied for.	P
	Electric strength test	Dto	P
2.10.9	Component external terminations	See appended table 2.10.2 and 2.10.3.	P
2.10.10	Insulation with varying dimensions	No reduction of distances considered.	N

3	WIRING, CONNECTIONS AND SUPPLY		P
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3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring which is PVC insulated, rated VW-1, min. 1617 or 1015, 80°C, 300V. wiring gauge is suitable for current intended to be carried. Internal wiring for primary power distribution protected by built-in fuse.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges and heatsinks which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	Internal wires with only basic isolation are routed so that they are not close to any live bare components. The wires are secured by quick connect terminals so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation material see sub-clause 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
3.1.6	Screws for electrical contact pressure	Electrical and earthing connections screwed two or more complete threads into metal. No screws of insulation material for electrical and earthing connections, or where supplementary or reinforced insulation could be impaired by a metal replacement.	P
3.1.7	Non-metallic materials in electrical connections	All connections are metal to metal.	N
3.1.8	Self-tapping and spaced thread screws	No self tapping screws are used.	P
3.1.9	Termination of conductors	All conductors are reliably secured by hooking-in, use of solder-pins or glue.	P
3.1.10	Sleeving on wiring	No sleeving used to provide supplementary insulation	N

3.2	Connection to a.c. mains supplies		P
3.2.1	Means of connection	Appliance inlet.	P
3.2.2	Multiple supply connections	Only for one mains connection.	N
3.2.3	Permanently connected equipment	Not a permanently connected equipment.	N
	Number of conductors, diameter (mm) of cable and conduits	dto	—
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320 and is located at the rear of the unit.	P
3.2.5	Power supply cords		N
	Type.....		—
	Rated current (A), cross-sectional area (mm ²), AWG.....		—
3.2.6	Cord anchorages and strain relief	No parts under this unit likely to damage the power supply cord. No sharp edges.	P
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage		N
3.2.8	Cord guards		N
	D (mm); test mass (g)		—
	Radius of curvature of cord (mm).....		—

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
3.2.9	Supply wiring space		N
3.3	Wiring terminals for connection of external conductors <i>Unit with detachable power supply cord, connected on appliance inlet.</i>		N
3.3.1	Wiring terminals		N
3.3.2	Connection of non-detachable power supply cords		N
3.3.3	Screw terminals		N
3.3.4	Rated current (A), cord/cable type, cross-sectional area (mm ²)		N
3.3.5	Rated current (A), type and nominal thread diameter (mm).....		N
3.3.6	Wiring terminals design		N
3.3.7	Grouping of wiring terminals		N
3.3.8	Standard wire		N
3.4	Disconnection from the a.c. mains supply		P
3.4.1	General requirement	The appliance inlet is considered to be the disconnect device.	P
3.4.2	Disconnect devices	Appliance inlet.	P
3.4.3	Permanently connected equipment	Not a permanently connected equipment.	N
3.4.4	Parts which remain energised	When plug or inlet is disconnected no remaining parts with hazardous voltage in the equipment.	P
3.4.5	Switches in flexible cords	No switches.	N
3.4.6	Single-phase equipment	The plug or inlet disconnects both poles simultaneously.	P
3.4.7	Three-phase equipment	Single phase equipment.	N
3.4.8	Switches as disconnect devices	No used as disconnect devices.	N
3.4.9	Plugs as disconnect devices	No plug provided.	N
3.4.10	Interconnected equipment	Certified plug or inlet, earthing connected before phases are connected.	P
3.4.11	Multiple power sources	Only one supply connection provided.	N
3.5	Interconnection of equipment		P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits..... :	Interconnection circuits of SELV through the connector. No ELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N

4	PHYSICAL REQUIREMENTS		P
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4.1	Stability		P
	Angle of 10°	This appliance is of a stable mechanical construction and does not overbalance when tilted to an angle of 10° from its normal upright position.	P
	Test: force (N)	Equipment is not a floor standing unit.	N

4.2	Mechanical strength		P
4.2.1	General	See below. After tests, unit complies with the requirements of sub-clauses 2.1.1, 2.6.1, 2.10 and 4.4.1.	P
4.2.2	Steady force test, 10 N	10N applied to all components other than enclosure.	P
4.2.3	Steady force test, 30 N		N
4.2.4	Steady force test, 250 N	250N applied to outer enclosure. No energy or other hazards.	P
4.2.5	Impact test	No hazard as result from steel ball impact test.	P
4.2.6	Drop test	Not a direct plug-in equipment.	N
4.2.7	Stress relief	Metal chassis.	N
4.2.8	Cathode ray tubes	No CRT in the unit.	—
	Picture tube separately certified	dto	N
	Picture tubes > 16 cm intrinsically protected	dto	N
	Non-intrinsically protected tubes > 16 cm used with protective screen	dto	N
	Intrinsically protected tubes: tests on 12 samples	dto	N
	Samples subject to ageing: 6	dto	N
	Samples subject to implosion test: 6	dto	N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
	Samples subject to mechanical strength test (steel ball): 6	dto	N
	Non-intrinsically protected tubes tested	dto	N
4.2.9	High pressure lamps	No high pressure lamp provided.	N
4.2.10	Wall or ceiling mounted equipment; force (N) ... :		N

4.3	Design and construction		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	P
4.3.2	Handles and manual controls; force (N) :	No handles or controls provided.	N
4.3.3	Adjustable controls	No controls provided.	N
4.3.4	Securing of parts	Mechanical fixings in such a way designed that they will withstand mechanical stress occurring in normal use.	P
4.3.5	Connection of plugs and sockets	No mismatching connectors, plug or socket possible.	P
4.3.6	Direct plug-in equipment	No a direct plug-in equipment.	N
	Torque (Nm) :		—
4.3.7	Heating elements in earthed equipment	No heating element provided.	N
4.3.8	Batteries	No batteries provided.	N
4.3.9	Oil and grease	Insulation in intended use not considered to be exposed to oil or grease	P
4.3.10	Dust, powders, liquids and gases	The equipment in intended use not considered to be exposed to dust, powders, liquids and gases.	P
4.3.11	Containers for liquids or gases	No container for liquid or gas provided.	N
4.3.12	Flammable liquids :	No flammable liquids provided.	N
	Quantity of liquid (l) :	dto	N
	Flash point (°C) :	dto	N
4.3.13	Radiation; type of radiation :	No ionizing radiation or laser or flammable liquids presents. The power emitted from the LED is far below LED Class 1 limit.	P
	Equipment using lasers, see separate test report of IEC 60825-1.		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

4.4	Protection against hazardous moving parts		N
4.4.1	General	No moving parts used.	N
4.4.2	Protection in operator access areas		N
4.4.3	Protection in restricted access locations		N
4.4.4	Protection in service access areas		N

4.5	Thermal requirements		P
4.5.1	Temperature rises	See appended table.	P
4.5.2	Resistance to abnormal heat	None of them outside the approved power supply.	N

4.6	Openings in enclosures		P
4.6.1	Top and side openings	No openings on the top and < 5 mm in any dimensions, no hazardous parts within 5° projection area.	P
	Dimensions (mm) :	(see appended table).	—
4.6.2	Bottoms of fire enclosures	Protection against emission of flame, molten metal, flaming or glowing particles or drops by fire enclosure. There are no openings at bottom of enclosure.	N
	Construction of the bottom..... :	(See appended table).	—
4.6.3	Doors or covers in fire enclosures	No doors or covers provided.	N
4.6.4	Openings in transportable equipment	Not a transportable equipment.	N
4.6.5	Adhesives for constructional purposes		N

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.	P
4.7.2	Conditions for a fire enclosure	See below.	P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
4.7.2.1	Parts requiring a fire enclosure	With having the following components: <ul style="list-style-type: none"> ■ components with windings ■ wiring ■ semiconductor devices, transistors, diodes, integrated circuits ■ resistors, capacitors, inductors The fire enclosure is required.	P
4.7.2.2	Parts not requiring a fire enclosure	See 4.7.2.1.	N
4.7.3	Materials	See below.	P
4.7.3.1	General	PCB rated accordingly. For details see appended table 1.5.1.	P
4.7.3.2	Materials for fire enclosures	Metal chassis.	N
4.7.3.3	Materials for components and other parts outside fire enclosures	See sub-clause 4.7.2.	N
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N
4.7.3.6	Materials used in high-voltage components	No high voltage components provided.	N

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS	P
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5.1	Touch current and protective conductor current		P
5.1.1	General	See sub-clauses 5.1.2 to 5.1.6.	P
5.1.2	Equipment under test (EUT)	EUT has only one mains connection.	P
5.1.3	Test circuit	Equipment of figure 5A used.	P
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	P
5.1.5	Test procedure	The touch current was measured from primary to chassis.	P
5.1.6	Test measurements	See below.	P
	Test voltage (V)	See appended table 5.1.6.	—
	Measured current (mA)	See appended table 5.1.6.	—

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

	Max. allowed current (mA)	See appended table 5.1.6.	—
5.1.7	Equipment with touch current exceeding 3.5 mA	Neither stationary permanently connected equipment nor stationary pluggable equipment type B.	N
5.1.8	Touch currents to and from telecommunication networks	No TNV.	N
5.1.8.1	Limitation of the touch current to a telecommunication network	dto	N
	Test voltage (V)	dto	—
	Measured current (mA)	dto	—
	Max. allowed current (mA)	dto	—
5.1.8.2	Summation of touch currents from telecommunication networks	No TNV.	N

5.2	Electric strength		P
5.2.1	General	see appended table .	P
5.2.2	Test procedure	see appended table .	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	Ventilation openings blocked and DC fans locked tests: results see appended table 5.3. Besides, there is no other foreseeable misuse likely to happen.	P
5.3.2	Motors	The cooling fans are certified components. See appended table 1.5.1. for details.	P
5.3.3	Transformers	Approved power supply. No other transformer.	N
5.3.4	Functional insulation	Method c) considered. Due to <ul style="list-style-type: none"> ■ all components are mounted on PCB of flammability V-1 ■ wiring is insulated by PVC ■ no risk of electrical shock No test had been performed.	N
5.3.5	Electromechanical components	No electromechanical component provided.	N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
5.3.6	Simulation of faults	Faults in primary and secondary components and functional insulation were already considered during the approval of the SPS. No other abnormal tests necessary.	N
5.3.7	Unattended equipment	None of the listed components was provided.	N
5.3.8	Compliance criteria for abnormal operating and fault conditions	See below.	P
5.3.8.1	During the tests	No fire propagated beyond the equipment. No molten metal was emitted.	P
5.3.8.2	After the tests	No fire propagated beyond the equipment. No molten metal was emitted. Electric strength test primary to SELV and primary to PE was passed.	P

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

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

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

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples		N
	Wall thickness (mm)		—
A.1.2	Conditioning of samples; temperature (°C).....		N
A.1.3	Mounting of samples		N
A.1.4	Test flame		N
A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N
A.2.1	Samples		N
	Wall thickness (mm)		—
A.2.2	Conditioning of samples; temperature (°C).....		N
A.2.3	Mounting of samples		N
A.2.4	Test flame		N
A.2.5	Test procedure		N
A.2.6	Compliance criteria		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8		N
	Sample 1 burning time (s)		—
	Sample 2 burning time (s)		—
	Sample 3 burning time (s)		—
A.3	High current arcing ignition test (see 4.7.3.2)		N
A.3.1	Samples		N
	Wall thickness (mm)		—
A.3.2	Test circuit		N
A.3.3	Test electrodes		N
A.3.4	Test procedure		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
A.3.5	Compliance criteria		N
	Sample 1 number of arcs to ignition (pcs)		—
	Sample 2 number of arcs to ignition (pcs)		—
	Sample 3 number of arcs to ignition (pcs)		—
	Sample 4 number of arcs to ignition (pcs)		—
	Sample 5 number of arcs to ignition (pcs)		—
A.4	Hot wire ignition test (see 4.7.3.2)		N
A.4.1	Samples		N
	Wall thickness (mm)		—
A.4.2	Test circuit		N
A.4.3	Mounting of samples		N
A.4.4	Test procedure		N
A.4.5	Compliance criteria		N
	Sample 1 ignition time (s).....		—
	Sample 2 ignition time (s).....		—
	Sample 3 ignition time (s).....		—
	Sample 4 ignition time (s).....		—
	Sample 5 ignition time (s).....		—
A.5	Hot flaming oil test (see 4.6.2)		N
A.5.1	Mounting of samples		N
A.5.2	Test procedure		N
A.5.3	Compliance criterion		N
A.6	Flammability tests for classifying materials V-0, V-1 or V-2		N
A.6.1	Samples		N
	Wall thickness (mm)		—
A.6.2	Conditioning of samples temperature (°C).....		N
A.6.3	Mounting of samples		N
A.6.4	Test procedure		N
A.6.5	Compliance criteria		N
A.6.6	Permitted retest		N
A.7	Flammability test for classifying foamed materials HF-1, HF-2 or HFB		N
A.7.1	Sample		N
	Wall thickness (mm)		—
A.7.2	Conditioning of samples; temperature (°C).....		N
A.7.3	Test procedure		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
A.7.4	Compliance criteria		N
A.7.5	Compliance criteria, HF-2		N
A.7.6	Compliance criteria, HF-1		N
A.7.7	Compliance criteria, HBF		N
A.7.8	Permitted retest, HF-1 or HF-2		N
A.7.9	Permitted retest, HBF		N
A.8	Flammability test for classifying materials HB		N
A.8.1	Samples		N
	Sample thickness (mm)		—
A.8.2	Conditioning of samples; temperature (°C).....		N
A.8.3	Mounting of samples		N
A.8.4	Test procedure		N
A.8.5	Compliance criteria		N
A.8.6	Permitted retest		N
A.9	Flammability test for classifying materials 5V		N
A.9.1	Samples		N
	Sample thickness (mm)		—
A.9.2	Conditioning of samples temperature (°C).....		N
A.9.3	Test flame		N
A.9.4	Test procedure, test bars		N
A.9.5	Test procedure, test plaques		N
A.9.6	Compliance criteria		N
A.9.7	Permitted retest		N
A.10	Stress relief conditioning (see 4.2.7)		N
	Temperature (°C)		—

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS		N
B.1	General requirements		N
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
B.2	Test conditions		N
B.3	Maximum temperatures		N
B.4	Running overload test		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

B.5	Locked-rotor overload test		N
	Test duration (days) :		—
	Electric strength test: test voltage (V) :		—
B.6	Running overload test for DC motors in secondary circuits		N
B.7	Locked-rotor overload test for DC motors in secondary circuits		N
B.7.1	Test procedure		N
B.7.2	Alternative test procedure; test time (h).....:		N
B.7.3	Electric strength test		N
B.8	Test for motors with capacitors		N
B.9	Test for three-phase motors		N
B.10	Test for series motors		N
	Operating voltage (V) :		—

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N
	Position :		—
	Manufacturer :		—
	Type :		—
	Rated values :		—
C.1	Overload test		N
C.2	Insulation		N

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument	Fig. D.1 used.	P
D.2	Alternative measuring instrument	See annex D.1.	N

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13 and 4.5.1) <i>Thermocouple method used.</i>		N
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		P
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES <i>The alternative method is not considered.</i>		N
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IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict
G.1	Summary of the procedure for determining minimum clearances		N
G.2	Determination of mains transient voltage (V)..... :		N
G.3	Determination of telecommunication network transient voltage (V) :		N
G.4	Determination of required withstand voltage (V) . :		N
G.5	Measurement of transient levels (V) :		N
G.6	Determination of minimum clearances :		N

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

J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal used :	No risk of corrosion.	—

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

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		P
L.1	Typewriters		N
L.2	Adding machines and cash registers		N
L.3	Erasers		N
L.4	Pencil sharpeners		N
L.5	Duplicators and copy machines		N
L.6	Motor-operated files		N

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

L.7	Other business equipment		P
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M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringng signal		N
M.3.1.1	Frequency (f)..... :		N
M.3.1.2	Voltage (V) :		N
M.3.1.3	Cadence; time (s), voltage (V) :		N
M.3.1.4	Single fault current (mA) :		N
M.3.2	Tripping device and monitoring voltage :		N
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
M.3.2.2	Tripping device		N
M.3.2.3	Monitoring voltage (V) :		N

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N
	Separate test report	No triple wire used.	N

V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P
V.1	Introduction		P
V.2	TN power systems	Equipment was connected to a TN power system during the relevant tests.	P
V.3	TT power systems		N
V.4	IT power systems	IT-power system tested.	P

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
Switching Power Supply	American Skynet Electronic Co.	SNP-9066	l/p: 115/230Vac, 50/60Hz, 2/1A o/p: 5Vdc/13A Class I, 50°C	IEC 60950: 1999	CB (by TUV Rheinland, US-TUVR-1365, report no: E2272606 01)	
AC Inlet	Supercom	SC-8	10A, 250Vac	IEC 60320	UL, VDE, S, CSA	
	Jackson	JR-101S	10A, 250Vac	IEC 60320	UL, VDE, S, CSA	
	Inalways	0711-2	10A, 250Vac	IEC 60320	UL, VDE, S, CSA	
	Rong Feng	SS-120	10A, 250Vac	IEC 60320	UL, VDE, S, CSA	
DC Fan (three provided)	Sunonwealth	KD0504PFB2-8	5Vdc, 0.09A, 6.5CFM	EN 30335-1	TUV, UL	
Power Switch	Light Country	R19A	6A, 250Vac	IEC 61058-1	UL, VDE, CSA	
Enclosure material	--	-	Metal, 1.0mm thickness	--	--	
PCB	--	--	V-1, 105°C min.	UL 94	UL	
¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance						

1.6.2	TABLE: electrical data (in normal conditions)						P
fuse #	Irated (A)	U (V/Hz)	P (W)	I (A)	Ifuse (A)	condition/status	
F1	--	90/50	39.40	0.742	0.742	Normal load	
F1	--	90/60	39.60	0.749	0.749	dto	
F1	1.9	100/50	39.20	0.686	0.686	dto	
F1	1.9	100/60	39.50	0.686	0.686	dto	
F1	1.9	240/50	40.20	0.373	0.373	dto	
F1	1.9	240/60	40.20	0.361	0.361	dto	
F1	--	264/50	40.40	0.345	0.345	dto	
F1	--	264/60	40.50	0.341	0.341	dto	

2.6.3.3	TABLE: ground continue test		N
Location	Resistant measured (mΩ)	Comments	

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

Location	Resistant measured (mΩ)	Comments
AC inlet ground pin to metal chassis	0.016	30A/2min
AC inlet ground pin to metal chassis	0.015	25A/1min
Test current = 20A or 30A		

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements	P
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clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
Primary component (C7) (with 10N) → top metal chassis (PE)	<420	<250	2.0	4.0	2.5	4.0
Primary component (HS1) (with 10N) → side metal chassis (PE)	<420	<250	2.0	10.0	2.5	10.0
Primary solder pin (with 10N) → bottom metal chassis (PE)	<420	<250	2.0	5.4	2.5	5.4
Primary traces (in SPS) → secondary traces (Sec. Main PCB)	<420	<250	4.0	5.3	5.0	5.3

Note:

1. Functional insulation shorted, see sub-clause 5.3.4.
2. The output wires of SPS were used double insulation wires

4.5.1	TABLE: temperature rise measurements	P
	test voltage (V) : 100-10%/240+10%	—
	t1 (°C) : --	—
	t2 (°C) : --	—

rise dT of part/at:	dT (K)	allowed dT (K)
For SPS parts:		
L1 coil	13.4/7.0	60
DB1 body	30.2/16.8	--
C7 body	12.9/9.5	40
Heatsink for Q1 (touch PCB)	26.3/21.9	60
PWB near R1	7.4/4.9	60
T1 core (Class A)	8.8/9.8	45
T1 coil (Class A)	14.8/15.3	45

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Clause	Requirement - Test		Result - Remark		Verdict	
rise dT of part/at:			dT (K)	allowed dT (K)		
IC1 Body (photo coupler)			3.8/3.7	55		
IC4 body			3.3/3.4	--		
IC2 body			8.8/9.4	--		
Heatsink for D3 (touch PCB)			13.8/13.2	60		
C14 body			15.4/13.8	40		
C16 body			10.7/9.8	40		
L3 coil			19.9/19.1	60		
For Unit part:						
L7 coil			40.1/40.8	60		
C50 body			26.2/27.2	40		
L4 coil			35.3/35.3	60		
C39 body			37.0/36.8	40		
PWB near U12			45.2/45.1	60		
U2 body (touch PCB)			29.1/28.9	60		
U25 body (touch PCB)			36.7/36.7	60		
U22 body (touch PCB)			40.6/40.8	60		
PWB near T4/T5			22.3/22.4	60		
U18 body			38.7/38.9	--		
U17 body			34.7/35.1	--		
Enclosure inside (near Power supply)			2.9/3.1	25		
Ambient			44.1°C/43.9°C	--		
temperature rise dT of winding:		R ₁ (Ω)	R ₂ (Ω)	dT (K)	allowed dT (K)	insulation class

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

rise dT of part/at:	dT (K)	allowed dT (K)
1. The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described in sub-clause 1.4.5 . 2. The user's manual defines the maximum ambient temperature at 45°C. Therefore the maximum permitted temperature rises are calculated as follows: <u>Winding components (with safety isolation):</u> -Class A → dTmax = 75K – 10 K - (45-25) K = 45 K Components with: - max. absolute temp. of 85°C → dTmax = (85-45) K = 40K - max. absolute temp. of 100°C → dTmax = (100-45) K = 55K - max. absolute temp. of 105°C → dTmax = (105-45) K = 60K <u>User accessible area (enclosure surface) with:</u> - max. temp. rise of 45K → dTmax = 45K – (45-25) K = 25 K		

4.6.1, 4.6.2	Table: enclosure openings	P
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Location	Size (mm)	Comments
Top	--	None
Left Side	Φ2.5mm	100 openings at left side.
Right side	26mm × 6.5mm	Three openings behind DC Fan near SELV side.
Bottom	--	None

5.1.6	TABLE: touch current measurement	P
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Condition	L→ terminal A (mA)	N → terminal A (mA)	Limit (mA)	comments
System On	0.4	0.38	3.5	To metal chassis
Input voltage : 264V Input frequency : 60Hz Overall capacity: in approved switching power supply				

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

5.2	TABLE: electric strength tests and impulse tests		P
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test voltage applied between:	test voltage (V)	breakdown Yes / No
Primary and secondary	DC 4242	No
Primary and PE	DC 3000	No

5.3	TABLE: fault condition tests <i>Tests in switching power supply are part of approval of switching power supply, other abnormal test, see below.</i>	P
	ambient temperature (°C) : 25°C, if not otherwise stated	—
	model/type of power supply : See appended table 1.5.1.	—
	manufacturer of power supply : See appended table 1.5.1.	—
	rated markings of power supply : See appended table 1.5.1.	—

No.	component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
01	Ventilation openings	blocked	240	3.5hrs	--	--	Temp. was stabled, no components damaged, switching power transformer coil=125.3°C, ambient=44.6°C, no hazards.
02	DC Fan (One Stall)	locked	240	2.5hrs	--	--	Temp. was stabled, no components damaged, switching power transformer coil=63.4°C, ambient=43.6°C, no hazards.
03	DC Fan (Two Stall)	locked	240	1.4hrs	--	--	Temp. was stabled, no components damaged, switching power transformer coil=78.7°C, ambient=43.8°C, no hazards.
04	DC Fan (All Stall)	locked	240	3.1hrs	--	--	Temp. was stabled, no components damaged, switching power transformer coil=132.0°C, ambient=43.8°C, no hazards.

supplementary information

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

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

A.6.6	TABLE: flammable test for classifying materials V-0, V-1 or V-2		N
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sample No.	After flame time (s) t_1 or t_2	After flame + afterglow (s) after 2nd flame application $t_2 + t_3$
11		
12		
13		
14		
15		
supplementary information:		
Total after flame time (s) for any condition set $t_1 + t_2$ for five (5) specimens:		

A.7.4, A.7.5, A.7.6 and A.7.7	TABLE: flammability test for classifying foam materials HF-1, HF-2 or HBF		N
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IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

sample No. / ref.	flame time (s)	glow time (s)	flaming/glowing distance from the end (mm)	comment (for A.7.7 burning rate mm/min)
1/A				
2/A				
3/A				
4/A				
5/A				
6/B				
7/B				
8/B				
9/B				
10/B				
supplementary information:				

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

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

IEC 60950				
Clause	Requirement - Test		Result - Remark	Verdict
sample No.	flame time (s)	glow time (s)	flaming/glowing distance from the end (mm)	comment (for A.7.7 burning rate mm/min)
15				
supplementary information:				

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

A.8.6	TABLE: flammable test for classifying materials HB	N
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sample No.	flaming/glowing rate mm/min	flaming/glowing distance from reference mark (mm)
4		
5		
6		
supplementary information:		

A.9.6	TABLE: flammability test for classifying materials 5V	N
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sample No. / ref.	test bars		test plaques	
	flaming + glowing time (s)	burning distance (mm)	flaming + glowing time (s)	burning distance (mm)
1/A				
2/A				
3/A				
4/A				
5/A			—	—

IEC 60950			
Clause	Requirement - Test	Result - Remark	Verdict

sample No. / ref.	test bars		test plaques	
	flaming + glowing time (s)	burning distance (mm)	flaming + glowing time (s)	burning distance (mm)
6/B				
7/B				
8/B				
9/B				
10/B			—	—
supplementary information:				

A.9.7	TABLE: flammability test for classifying materials 5V	N
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sample No.	test bars		test plaques	
	flaming + glowing time (s)	burning distance (mm)	flaming + glowing time (s)	burning distance (mm)
11				
12				
13				
14				
15			—	—
supplementary information:				

EN 60950			
Clause	Requirement - Test	Result - Remark	Verdict
4.3.13 C	<p>Replace the second compliance paragraph by:</p> <p>For equipment using LEDs or lasers, compliance is checked according to EN 60825-1.</p> <p>NOTE 1: if equipment falling within the scope of EN 60950 is inherently a class 1 laser product, i.e., it contains no embedded laser or LD of a higher class number, then a laser warning label or other laser warning statement is not required (see 1.1 of EN 60825-1).</p> <p>Renumber the NOTE below the third compliance paragraph 2S NOTE 2.</p>	No laser or LED.	N
Annex H A	<p>Replace the last paragraph of this annex by:</p> <p>At any point 10cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceeded $1\mu\text{Sv/h}$(0.1mR/h) (see note). Account is taken of the background level.</p> <p>Replace the NOTE as follows:</p> <p>NOTE – These values appear in directive 96/29/Euratom.</p>	Replaced.	N
Annex P C	<p>Replace the text of this annex by:</p> <p>Aee annex ZA.</p>	Replaced.	N
Annex Q C	<p>Add the following notes for the standards indicated:</p> <p>IEC 60127 series NOTE: Harmonized as EN 60127 series (not modified)</p> <p>IEC 60529 NOTE: Harmonized as EN 60529:1991 (not modified)</p> <p>IEC 61032 NOTE: Harmonized as EN 61032:1998 (not modified)</p>	Added.	N

Remarks

Manufacturer site: **D-Link Corp.**

[No.8, Li-Shing Rd. VII, Science-Based Industrial Park, His-Chu, Taiwan, R.O.C](#)

- 1 The instructions specified by the standard have to be in official language of each country, however, only English is checked for this report. It is the applicant responsibility to provide instruction in each official language of the EU.
- 2 This report is submitted for the exclusive use of the client to whom it is addressed. Its significance is subject to the adequacy and representative character of the sample(s) and to the comprehensiveness of the tests, examinations or surveys made.
- 3 The CE marking may only be used if all relevant and effective EC directives are complied with.
The equipment model DGS-1016T (Class III) is a 16 Port 10/100Mbps Gigabit Ethernet Switch, for general office use.
- 4 The test samples were pre-production samples without serial numbers.