<table>
<thead>
<tr>
<th>Product</th>
<th>Network attached storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and address of the applicant</td>
<td>QNAP System Inc.</td>
</tr>
<tr>
<td></td>
<td>21F, No. 77, Sec. 1, Xintai 5th Rd., Xizhi City, Taipei County, Taiwan.</td>
</tr>
<tr>
<td>Name and address of the manufacturer</td>
<td>QNAP System Inc.</td>
</tr>
<tr>
<td></td>
<td>21F, No. 77, Sec. 1, Xintai 5th Rd., Xizhi City, Taipei County, Taiwan.</td>
</tr>
<tr>
<td>Name and address of the factory</td>
<td>QNAP Systems, Inc.</td>
</tr>
<tr>
<td></td>
<td>21F, No.77, Sec.1, Xintai 5th Rd, Xizhi City, Taipei Country, 221, Taiwan, R.O.C</td>
</tr>
<tr>
<td>Rating and principal characteristics</td>
<td>12Vdc, 5A</td>
</tr>
<tr>
<td>Class of equipment</td>
<td>Class III equipment</td>
</tr>
<tr>
<td>Trade mark</td>
<td>QNAP, VioStor</td>
</tr>
<tr>
<td>Serial no</td>
<td>Test sample without serial numbers</td>
</tr>
<tr>
<td>Tested according to</td>
<td>EN 60950-1:2001+A11</td>
</tr>
<tr>
<td>Name and address of the testing laboratory</td>
<td>International Standards Labortary</td>
</tr>
<tr>
<td></td>
<td>No.120, Lane 180, San Ho Tsuen, Hsin Ho Road, Lung-Tan Hsiang, Tao Yuan County, Taiwan</td>
</tr>
<tr>
<td>Tested by</td>
<td>Emily Chang / Engineer</td>
</tr>
<tr>
<td></td>
<td>name in block letters</td>
</tr>
<tr>
<td></td>
<td>2007-08-15</td>
</tr>
<tr>
<td>Approved by</td>
<td>Jack Lin / Associate Director</td>
</tr>
<tr>
<td></td>
<td>name in block letters</td>
</tr>
<tr>
<td></td>
<td>2007-08-29</td>
</tr>
</tbody>
</table>
Particulars: test item vs. test requirements

<table>
<thead>
<tr>
<th>Particular</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment mobility</td>
<td>Movable equipment</td>
</tr>
<tr>
<td>Operating condition</td>
<td>continuous</td>
</tr>
<tr>
<td>Mains supply tolerance (%)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Tested for IT power systems</td>
<td>Yes</td>
</tr>
<tr>
<td>IT testing, phase-phase voltage (V)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Class of equipment</td>
<td>Class III</td>
</tr>
<tr>
<td>Mass of equipment (kg)</td>
<td>3.6 kg</td>
</tr>
<tr>
<td>Protection against ingress of water</td>
<td>IPX20</td>
</tr>
</tbody>
</table>

Test case verdicts

<table>
<thead>
<tr>
<th>Test case verdicts</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test case does not apply to the test object</td>
<td>N/A</td>
</tr>
<tr>
<td>Test item does meet the requirement</td>
<td>P(ass)</td>
</tr>
<tr>
<td>Test item does not meet the requirement</td>
<td>F(ail)</td>
</tr>
</tbody>
</table>

Testing

<table>
<thead>
<tr>
<th>Testing</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of receipt of test item</td>
<td>2007-08-01</td>
</tr>
<tr>
<td>Date(s) of performance of test</td>
<td>2007-08-15</td>
</tr>
</tbody>
</table>

Total pages of report 47 (Report: 41; Photos: 3; Block & Circuit Diagram: 3)

General remarks

Comments:

Connection to the supply: external adaptor.


All interior servicing is to be performed by qualified service personnel, which requires the use of a tool.

The external AC adapter (Class I) approved by TUV Rheinland Certificate No. JPTUV-015287, Report No.12013460.

Maximum recommended ambient (Tmra): 35°C

Dimensions: 215 x 175 x 114 mm (included front bezel).
<table>
<thead>
<tr>
<th>QNAP</th>
<th>VioStor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
</tr>
<tr>
<td>Model : TS-209</td>
<td>Model : VioStor-209</td>
</tr>
<tr>
<td>Input : 12V, 5A</td>
<td>Input : 12V, 5A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QNAP</th>
<th>VioStor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
</tr>
<tr>
<td>Model : TS-209M</td>
<td>Model : VioStor-209</td>
</tr>
<tr>
<td>Input : 12V, 5A</td>
<td>Input : 12V, 5A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QNAP</th>
<th>VioStor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
<td><strong>Network Attached Storage 網路磁碟機</strong></td>
</tr>
<tr>
<td>Model : VioStor-209P</td>
<td>Model : VioStor-209V</td>
</tr>
<tr>
<td>Input : 12V, 5A</td>
<td>Input : 12V, 5A</td>
</tr>
</tbody>
</table>

**Copy of marking plate(s):**
<table>
<thead>
<tr>
<th></th>
<th>GENERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>Components</td>
</tr>
<tr>
<td>1.5.1</td>
<td>General</td>
</tr>
<tr>
<td></td>
<td>Comply with IEC 60950 or relevant component standard</td>
</tr>
<tr>
<td></td>
<td>Components, which were found to affect safety aspects, comply with the requirements of this standard or within the safety aspects of the relevant IEC/EN component standards (see appended table 1.5.1).</td>
</tr>
<tr>
<td>1.5.2</td>
<td>Evaluation and testing of components</td>
</tr>
<tr>
<td></td>
<td>Components, which are certified to IEC and/or national standards, are used correctly within their ratings. Components not covered by IEC/EN standards are tested under the conditions present in the equipment.</td>
</tr>
<tr>
<td>1.5.3</td>
<td>Thermal controls</td>
</tr>
<tr>
<td></td>
<td>No thermal controls provided.</td>
</tr>
<tr>
<td>1.5.4</td>
<td>Transformers</td>
</tr>
<tr>
<td></td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td>1.5.5</td>
<td>Interconnecting cables</td>
</tr>
<tr>
<td></td>
<td>No interconnecting cables.</td>
</tr>
<tr>
<td>1.5.6</td>
<td>Capacitors in primary circuits</td>
</tr>
<tr>
<td></td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td>1.5.7</td>
<td>Double insulation or reinforced insulation bridged by components</td>
</tr>
<tr>
<td></td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td>1.5.7.1</td>
<td>General</td>
</tr>
<tr>
<td>1.5.7.2</td>
<td>Bridging capacitors</td>
</tr>
<tr>
<td>1.5.7.3</td>
<td>Bridging resistors</td>
</tr>
<tr>
<td>1.5.7.4</td>
<td>Accessible parts</td>
</tr>
<tr>
<td>1.5.8</td>
<td>Components in equipment for IT power systems</td>
</tr>
<tr>
<td></td>
<td>In approved AC adaptor used only.</td>
</tr>
<tr>
<td>1.6</td>
<td>Power interface</td>
</tr>
<tr>
<td>1.6.1</td>
<td>AC power distribution systems</td>
</tr>
<tr>
<td></td>
<td>Class III equipment</td>
</tr>
<tr>
<td>1.6.2</td>
<td>Input current</td>
</tr>
<tr>
<td></td>
<td>Highest load according to Max. Normal load for this equipment is the 2 set of Hard Disk Device permanently accessed and add dummy load USB 5V/0.5A * 3 ports.</td>
</tr>
<tr>
<td>1.6.3</td>
<td>Voltage limit of hand-held equipment</td>
</tr>
<tr>
<td></td>
<td>This appliance is not hand-held equipment.</td>
</tr>
<tr>
<td>1.6.4</td>
<td>Neutral conductor</td>
</tr>
<tr>
<td></td>
<td>Class III equipment supplied by SELV circuits.</td>
</tr>
<tr>
<td>1.7</td>
<td>Marking and instructions</td>
</tr>
</tbody>
</table>

---

Ref. No 07LS037LV
### 1.7.1 Power rating

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required marking</td>
<td>The required marking is located on the equipment.</td>
</tr>
<tr>
<td>Rated voltage(s) or voltage range(s) (V)</td>
<td>12Vdc (no direct connection to the mains supply)</td>
</tr>
<tr>
<td>Symbol for nature of supply, for d.c. only</td>
<td>IEC 60417, Symbol No.5031 is used</td>
</tr>
<tr>
<td>Rated frequency or rated frequency range (Hz)</td>
<td>No direct connection to the AC mains supply.</td>
</tr>
<tr>
<td>Rated current (mA or A)</td>
<td>5A</td>
</tr>
<tr>
<td>Manufacturer's name or trademark or identification mark</td>
<td>QNAP, VioStor</td>
</tr>
<tr>
<td>Symbol for Class II equipment only</td>
<td>Class III equipment</td>
</tr>
<tr>
<td>Other symbols</td>
<td>Other symbols do not give rise to misunderstanding.</td>
</tr>
<tr>
<td>Certification marks</td>
<td>See copy of the marking plate for the safety marks.</td>
</tr>
</tbody>
</table>

### 1.7.2 Safety instructions

- Short duty cycles: Equipment is designed for continuous operation.
- Supply voltage adjustment: No voltage selector
- Methods and means of adjustment: Reference to installation instructions
- Power outlets on the equipment: No power outlet
- Fuse identification (marking, special fusing characteristics, cross-reference): Class III equipment.
- Wiring terminals: Class III equipment supplied by SELV circuits
- Protective earthing and bonding terminals: --
- Terminal for a.c. mains supply conductors: --
- Terminals for d.c. mains supply conductors: --
- Controls and indicators: See below.
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7.8.1</td>
<td>Identification, location and marking</td>
<td>Marking is identification of the functional switch is located that the functions clear for the operator.</td>
</tr>
<tr>
<td>1.7.8.2</td>
<td>Colours</td>
<td>No safety relevant controls or indicators. For functional indication a LED lights when the equipment is operating.</td>
</tr>
<tr>
<td>1.7.8.3</td>
<td>Symbols according to IEC 60417</td>
<td>Marking for stand-by type functional switch according to IEC 60417, No. 5009 (line half inside circle).</td>
</tr>
<tr>
<td>1.7.8.4</td>
<td>Markings using figures</td>
<td>Not used.</td>
</tr>
<tr>
<td>1.7.9</td>
<td>Isolation of multiple power sources</td>
<td>Only one supply from the mains.</td>
</tr>
<tr>
<td>1.7.10</td>
<td>IT power distribution systems</td>
<td>For Norway compliance please see Norway deviation.</td>
</tr>
<tr>
<td>1.7.11</td>
<td>Thermostats and other regulating devices</td>
<td>No adjustable thermostats.</td>
</tr>
<tr>
<td>1.7.12</td>
<td>Language(s)</td>
<td>User’s manual and marking in English, in Local language will be provided with the shipment.</td>
</tr>
<tr>
<td>1.7.13</td>
<td>Durability</td>
<td>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.</td>
</tr>
<tr>
<td>1.7.14</td>
<td>Removable parts</td>
<td>No required markings placed on removable parts.</td>
</tr>
<tr>
<td>1.7.15</td>
<td>Replaceable batteries</td>
<td>Lithium battery is exchangeable. Warning sentence is printed in the user’s manual.</td>
</tr>
<tr>
<td>1.7.16</td>
<td>Operator access with a tool</td>
<td>The inside of the Server Charger is regarded to be operator access area. This area is accessible when the enclosure of the server is disassembled by screwdriver.</td>
</tr>
<tr>
<td>1.7.17</td>
<td>Equipment for restricted access locations</td>
<td>No restricted access location.</td>
</tr>
</tbody>
</table>

2 PROTECTION FROM HAZARDS

2.1 Protection from electric shock and energy hazards
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1</td>
<td>Protection in operator access areas</td>
<td>The construction of the outer metal enclosure prevents the accessibility to any parts with only basic insulation to ELV or hazardous voltage with the test pin or test finger.</td>
</tr>
<tr>
<td>2.1.1.1</td>
<td>Access to energized parts</td>
<td>Compliance checked.</td>
</tr>
<tr>
<td></td>
<td>Test by inspection</td>
<td>Compliance checked.</td>
</tr>
<tr>
<td></td>
<td>Test with test finger</td>
<td>Compliance checked.</td>
</tr>
<tr>
<td></td>
<td>Test with test pin</td>
<td>Compliance checked.</td>
</tr>
<tr>
<td></td>
<td>Test with test probe</td>
<td>Not applied.</td>
</tr>
<tr>
<td>2.1.1.2</td>
<td>Battery compartments</td>
<td>No battery compartment.</td>
</tr>
<tr>
<td>2.1.1.3</td>
<td>Access to ELV wiring</td>
<td>No ELV wiring provided</td>
</tr>
<tr>
<td></td>
<td>Working voltage (Vpeak or Vrms); minimum distance (mm) through insulation</td>
<td>—</td>
</tr>
<tr>
<td>2.1.1.4</td>
<td>Access to hazardous voltage circuit wiring</td>
<td>No hazardous voltage wiring in operator accessible area.</td>
</tr>
<tr>
<td>2.1.1.5</td>
<td>Energy hazards</td>
<td>No energy hazard in user access area</td>
</tr>
<tr>
<td>2.1.1.6</td>
<td>Manual controls</td>
<td>No conductive shafts of operating knobs and handles.</td>
</tr>
<tr>
<td>2.1.1.7</td>
<td>Discharge of capacitors in equipment</td>
<td>Supplied by SELV only</td>
</tr>
<tr>
<td></td>
<td>Time-constant (s); measured voltage (V)</td>
<td>—</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Protection in service access areas</td>
<td>No maintenance works in operation mode necessary.</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Protection in restricted access locations</td>
<td>The unit is not intended to be used in restricted locations.</td>
</tr>
<tr>
<td>2.2</td>
<td>SELV circuits</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>General requirements</td>
<td>SELV limits are not exceeded under normal condition and after a single fault.</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Voltages under normal conditions (V)</td>
<td>All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Voltages under fault conditions (V)</td>
<td>Under fault conditions voltages never exceed 71V peak and 120Vdc and do not exceed 42.4V peak or 60V dc for more than 0.2 sec.</td>
</tr>
<tr>
<td>2.2.3.1</td>
<td>Separation by double insulation or reinforced insulation (method 1)</td>
<td>Method 1 used.</td>
</tr>
<tr>
<td>2.2.3.2</td>
<td>Separation by earthed screen (method 2)</td>
<td>Not used.</td>
</tr>
<tr>
<td>2.2.3.3</td>
<td>Protection by earthing of the SELV circuit (method 3)</td>
<td>Not used.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Notes</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>2.2.4</td>
<td>Connection of SELV circuits to other circuits</td>
<td>SELV circuits are only connected to other SELV circuits.</td>
</tr>
<tr>
<td>2.3</td>
<td>TNV circuits</td>
<td>N</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Limits</td>
<td>No TNV Circuit.</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Separation from other circuits and from accessible parts</td>
<td>N</td>
</tr>
<tr>
<td>2.3.3</td>
<td>Separation from hazardous voltages</td>
<td>N</td>
</tr>
<tr>
<td>2.3.4</td>
<td>Connection of TNV circuits to other circuits</td>
<td>N</td>
</tr>
<tr>
<td>2.3.5</td>
<td>Test for operating voltages generated externally</td>
<td>N</td>
</tr>
<tr>
<td>2.4</td>
<td>Limited current circuits</td>
<td>N</td>
</tr>
<tr>
<td>2.4.1</td>
<td>General requirements</td>
<td>No LCC within the equipment</td>
</tr>
<tr>
<td>2.4.2</td>
<td>Limit values</td>
<td>N</td>
</tr>
<tr>
<td>2.4.3</td>
<td>Connection of limited current circuits to other circuits</td>
<td>N</td>
</tr>
<tr>
<td>2.5</td>
<td>Limited power sources (The USB circuitry were tested as LPS)</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>Inherently limited output</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Impedance limited output</td>
<td>See appended table 2.5.</td>
</tr>
<tr>
<td></td>
<td>Overcurrent protective device limited output</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Regulating network limited output under normal operating and single fault condition</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Output voltage (V), output current (A), apparent power (VA)</td>
<td>See appended table 2.5.</td>
</tr>
<tr>
<td></td>
<td>Current rating of overcurrent protective device (A)</td>
<td>—</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Details</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>2.6</td>
<td>Provisions for earthing and bonding</td>
<td></td>
</tr>
<tr>
<td>2.6.1</td>
<td>Protective earthing</td>
<td>Class III equipment. Supplied by SELV</td>
</tr>
<tr>
<td>2.6.2</td>
<td>Functional earthing</td>
<td></td>
</tr>
<tr>
<td>2.6.3</td>
<td>Protective earthing and protective bonding conductors</td>
<td></td>
</tr>
<tr>
<td>2.6.3.1</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>2.6.3.2</td>
<td>Size of protective earthing conductors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rated current (A), cross-sectional area (mm²), AWG</td>
<td>—</td>
</tr>
<tr>
<td>2.6.3.3</td>
<td>Size of protective bonding conductors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rated current (A), cross-sectional area (mm²), AWG</td>
<td>—</td>
</tr>
<tr>
<td>2.6.3.4</td>
<td>Resistance (Ω) of earthing conductors and their terminations, test current (A)</td>
<td>N</td>
</tr>
<tr>
<td>2.6.3.5</td>
<td>Colour of insulation</td>
<td>N</td>
</tr>
<tr>
<td>2.6.4</td>
<td>Terminals</td>
<td></td>
</tr>
<tr>
<td>2.6.4.1</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>2.6.4.2</td>
<td>Protective earthing and bonding terminals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rated current (A), type and nominal thread diameter (mm)</td>
<td>—</td>
</tr>
<tr>
<td>2.6.4.3</td>
<td>Separation of the protective earthing conductor from protective bonding conductors</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5</td>
<td>Integrity of protective earthing</td>
<td></td>
</tr>
<tr>
<td>2.6.5.1</td>
<td>Interconnection of equipment</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.2</td>
<td>Components in protective earthing conductors and protective bonding conductors</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.3</td>
<td>Disconnection of protective earth</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.4</td>
<td>Parts that can be removed by an operator</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.5</td>
<td>Parts removed during servicing</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.6</td>
<td>Corrosion resistance</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.7</td>
<td>Screws for protective bonding</td>
<td>N</td>
</tr>
<tr>
<td>2.6.5.8</td>
<td>Reliance on telecommunication network or cable distribution system</td>
<td>N</td>
</tr>
<tr>
<td>2.7</td>
<td>Overcurrent and earth fault protection in primary circuits</td>
<td></td>
</tr>
<tr>
<td>2.7.1</td>
<td>Basic requirements</td>
<td>Class III equipment. Supplied by SELV</td>
</tr>
<tr>
<td></td>
<td>Instructions when protection relies on building installation</td>
<td>—</td>
</tr>
<tr>
<td>2.7.2</td>
<td>Faults not covered in 5.3</td>
<td>N</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Status</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>2.7.3</td>
<td>Short-circuit backup protection</td>
<td>N</td>
</tr>
<tr>
<td>2.7.4</td>
<td>Number and location of protective devices</td>
<td>N</td>
</tr>
<tr>
<td>2.7.5</td>
<td>Protection by several devices</td>
<td>N</td>
</tr>
<tr>
<td>2.7.6</td>
<td>Warning to service personnel</td>
<td>N</td>
</tr>
<tr>
<td>2.8</td>
<td>Safety interlocks</td>
<td>N</td>
</tr>
<tr>
<td>2.8.1</td>
<td>General principles</td>
<td>No safety interlock.</td>
</tr>
<tr>
<td>2.8.2</td>
<td>Protection requirements</td>
<td>N</td>
</tr>
<tr>
<td>2.8.3</td>
<td>Inadvertent reactivation</td>
<td>N</td>
</tr>
<tr>
<td>2.8.4</td>
<td>Fail-safe operation</td>
<td>N</td>
</tr>
<tr>
<td>2.8.5</td>
<td>Moving parts</td>
<td>N</td>
</tr>
<tr>
<td>2.8.6</td>
<td>Overriding</td>
<td>N</td>
</tr>
<tr>
<td>2.8.7</td>
<td>Switches and relays</td>
<td>N</td>
</tr>
<tr>
<td>2.8.7.1</td>
<td>Contact gaps (mm)</td>
<td>N</td>
</tr>
<tr>
<td>2.8.7.2</td>
<td>Overload test</td>
<td>N</td>
</tr>
<tr>
<td>2.8.7.3</td>
<td>Endurance test</td>
<td>N</td>
</tr>
<tr>
<td>2.8.7.4</td>
<td>Electric strength test</td>
<td>N</td>
</tr>
<tr>
<td>2.8.8</td>
<td>Mechanical actuators</td>
<td>N</td>
</tr>
<tr>
<td>2.9</td>
<td>Electrical insulation</td>
<td>N</td>
</tr>
<tr>
<td>2.9.1</td>
<td>Properties of insulating materials</td>
<td>—</td>
</tr>
<tr>
<td>2.9.2</td>
<td>Humidity conditioning</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Humidity (%)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Temperature (°C)</td>
<td>—</td>
</tr>
<tr>
<td>2.9.3</td>
<td>Grade of insulation</td>
<td>—</td>
</tr>
<tr>
<td>2.10</td>
<td>Clearances, creepage distances and distances through insulation</td>
<td>N</td>
</tr>
<tr>
<td>2.10.1</td>
<td>General</td>
<td>N</td>
</tr>
<tr>
<td>2.10.2</td>
<td>Determination of working voltage</td>
<td>The measurements were done within the approval of the AC adaptor.</td>
</tr>
<tr>
<td>2.10.3</td>
<td>Clearances</td>
<td>N</td>
</tr>
<tr>
<td>2.10.3.1</td>
<td>General</td>
<td>N</td>
</tr>
<tr>
<td>2.10.3.2</td>
<td>Clearances in primary circuits</td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td>2.10.3.3</td>
<td>Clearances in secondary circuits</td>
<td>N</td>
</tr>
<tr>
<td>2.10.3.4</td>
<td>Measurement of transient voltage levels</td>
<td>No transient voltages across the clearance lower than due or normal.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Details</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>2.10.4</td>
<td>Creepage distances</td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td></td>
<td>CTI tests</td>
<td></td>
</tr>
<tr>
<td>2.10.5</td>
<td>Solid insulation</td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td>2.10.5.1</td>
<td>Minimum distance through insulation</td>
<td></td>
</tr>
<tr>
<td>2.10.5.2</td>
<td>Thin sheet material</td>
<td>In approved AC adaptor only.</td>
</tr>
<tr>
<td></td>
<td>Number of layers (pcs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric strength test</td>
<td></td>
</tr>
<tr>
<td>2.10.5.3</td>
<td>Printed boards</td>
<td>Not provided.</td>
</tr>
<tr>
<td></td>
<td>Distance through insulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric strength test for thin sheet insulating material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of layers (pcs)</td>
<td></td>
</tr>
<tr>
<td>2.10.5.4</td>
<td>Wound components</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of layers (pcs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two wires in contact inside wound component; angle between 45° and 90°</td>
<td></td>
</tr>
<tr>
<td>2.10.6</td>
<td>Coated printed boards</td>
<td></td>
</tr>
<tr>
<td>2.10.6.1</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>2.10.6.2</td>
<td>Sample preparation and preliminary inspection</td>
<td></td>
</tr>
<tr>
<td>2.10.6.3</td>
<td>Thermal cycling</td>
<td></td>
</tr>
<tr>
<td>2.10.6.4</td>
<td>Thermal ageing (°C)</td>
<td></td>
</tr>
<tr>
<td>2.10.6.5</td>
<td>Electric strength test</td>
<td></td>
</tr>
<tr>
<td>2.10.6.6</td>
<td>Abrasion resistance test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric strength test</td>
<td></td>
</tr>
<tr>
<td>2.10.7</td>
<td>Enclosed and sealed parts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temperature T1 = T2 + Tma – Tamb +10K (°C)</td>
<td></td>
</tr>
<tr>
<td>2.10.8</td>
<td>Spacings filled by insulating compound</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric strength test</td>
<td></td>
</tr>
<tr>
<td>2.10.9</td>
<td>Component external terminations</td>
<td></td>
</tr>
<tr>
<td>2.10.10</td>
<td>Insulation with varying dimensions</td>
<td></td>
</tr>
</tbody>
</table>

3  WIRING, CONNECTIONS AND SUPPLY  P

3.1  General  P
### 3.1.1 Current rating and overcurrent protection

All internal wires are all UL recognized wiring, which is PVC insulated, rated VW-1, min. 80°C, 300V. Internal wiring gauge is suitable for current intended to be carried. No internal wire for primary power distribution provided.


### 3.1.2 Protection against mechanical damage

Wires do not touch sharp edges and heatsinks, which could damage the insulation and cause hazard.


### 3.1.3 Securing of internal wiring

The wires are secured by soldering and quick connector so that a loosening of the terminal connection is unlikely.


### 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 3.1.1.


### 3.1.5 Beads and ceramic insulators

Not used.


### 3.1.6 Screws for electrical contact pressure

No such screws provided.


### 3.1.7 Insulating materials in electrical connections

All current carrying connections are metal to metal.


### 3.1.8 Self-tapping and spaced thread screws

No self-tapping or spaced thread screws used.


### 3.1.9 Termination of conductors

All conductors are reliably secured.


### 3.1.10 Sleeving on wiring

Not used.


### 3.2 Connection to an a.c. mains supply or a d.c. mains supply

No direct connection to mains.

### 3.2.1 Means of connection

No direct connection to mains.

### 3.2.1.1 Connection to an a.c. mains supply

No direct connection to mains.

### 3.2.1.2 Connection to a d.c. mains supply

No direct connection to mains.

### 3.2.2 Multiple supply connections

---

### 3.2.3 Permanently connected equipment

---

### 3.2.4 Appliance inlets

---

### 3.2.5 Power supply cords

---

### 3.2.5.1 AC power supply cords

---
<table>
<thead>
<tr>
<th>Ref. No 07LS037LV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Rated current (A), cross-sectional area (mm²), AWG</strong></td>
</tr>
<tr>
<td><strong>3.2.5.2 DC power supply cords</strong></td>
</tr>
<tr>
<td><strong>3.2.6 Cord anchorages and strain relief</strong></td>
</tr>
<tr>
<td><strong>Mass of equipment (kg), pull (N)</strong></td>
</tr>
<tr>
<td><strong>Longitudinal displacement (mm)</strong></td>
</tr>
<tr>
<td><strong>3.2.7 Protection against mechanical damage</strong></td>
</tr>
<tr>
<td><strong>3.2.8 Cord guards</strong></td>
</tr>
<tr>
<td><strong>D (mm); test mass (g)</strong></td>
</tr>
<tr>
<td><strong>Radius of curvature of cord (mm)</strong></td>
</tr>
<tr>
<td><strong>3.2.9 Supply wiring space</strong></td>
</tr>
</tbody>
</table>

| **3.3 Wiring terminals for connection of external conductors** | 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 Conductor sizes to be connected** | N |
| **Rated current (A), cord/cable type, cross-sectional area (mm²)** | .......................................................... : | — |
| **3.3.5 Wiring terminal sizes** | N |
| **Rated current (A), type and nominal thread diameter (mm)** | .......................................................... : | — |
| **3.3.6 Wiring terminals design** | N |
| **3.3.7 Grouping of wiring terminals** | N |
| **3.3.8 Stranded wire** | N |

| **3.4 Disconnection from the mains supply** | N |
| **3.4.1 General requirement** | No direct connection to mains. | N |
| **3.4.2 Disconnect devices** | N |
| **3.4.3 Permanently connected equipment** | N |
| **3.4.4 Parts which remain energized** | N |
| **3.4.5 Switches in flexible cords** | N |
| **3.4.6 Single-phase equipment and d.c. equipment** | N |
| **3.4.7 Three-phase equipment** | N |
| **3.4.8 Switches as disconnect devices** | N |
| **3.4.9 Plugs as disconnect devices** | N |
### 3.4.10 Interconnected equipment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4.11</td>
<td>Multiple power sources</td>
</tr>
</tbody>
</table>

### 3.5 Interconnection of equipment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1</td>
<td>General requirements</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Types of interconnection circuits</td>
</tr>
<tr>
<td>3.5.3</td>
<td>ELV circuits as interconnection circuits</td>
</tr>
</tbody>
</table>

### 4 PHYSICAL REQUIREMENTS

#### 4.1 Stability

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle of 10°</td>
<td>This appliance is of a stable mechanical construction and does not overbalance when tilted to an angle of 10° from its normal upright position.</td>
</tr>
<tr>
<td>Test: force (N)</td>
<td>Mass of unit is less 25 kg.</td>
</tr>
</tbody>
</table>

#### 4.2 Mechanical strength

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>4.2.1</td>
<td>General</td>
</tr>
<tr>
<td>4.2.2</td>
<td>Steady force test, 10 N</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Steady force test, 30 N</td>
</tr>
<tr>
<td>4.2.4</td>
<td>Steady force test, 250 N</td>
</tr>
<tr>
<td>4.2.5</td>
<td>Impact test</td>
</tr>
<tr>
<td>4.2.6</td>
<td>Drop test</td>
</tr>
<tr>
<td>4.2.7</td>
<td>Stress relief test</td>
</tr>
<tr>
<td>4.2.8</td>
<td>Cathode ray tubes</td>
</tr>
<tr>
<td>4.2.9</td>
<td>High pressure lamps</td>
</tr>
<tr>
<td>4.2.10</td>
<td>Wall or ceiling mounted equipment; force (N)</td>
</tr>
</tbody>
</table>

#### 4.3 Design and construction

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3.1</td>
<td>Edges and corners</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Handles and manual controls; force (N)..............</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Adjustable controls</td>
</tr>
<tr>
<td>4.3.4</td>
<td>Securing of parts</td>
</tr>
<tr>
<td>4.3.5</td>
<td>Connection of plugs and sockets</td>
</tr>
<tr>
<td>4.3.6</td>
<td>Direct plug-in equipment</td>
</tr>
<tr>
<td>Dimensions (mm) of mains plug for direct plug-in:</td>
<td>—</td>
</tr>
<tr>
<td>Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)</td>
<td>—</td>
</tr>
<tr>
<td>4.3.7</td>
<td>Heating elements in earthed equipment</td>
</tr>
<tr>
<td>4.3.8</td>
<td>Batteries</td>
</tr>
<tr>
<td>4.3.9</td>
<td>Oil and grease</td>
</tr>
<tr>
<td>4.3.10</td>
<td>Dust, powders, liquids and gases</td>
</tr>
<tr>
<td>4.3.11</td>
<td>Containers for liquids or gases</td>
</tr>
<tr>
<td>4.3.12</td>
<td>Flammable liquids</td>
</tr>
<tr>
<td>Quantity of liquid (l)</td>
<td>—</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>—</td>
</tr>
<tr>
<td>4.3.13</td>
<td>Radiation; type of radiation</td>
</tr>
<tr>
<td>4.3.13.1</td>
<td>General</td>
</tr>
<tr>
<td>4.3.13.2</td>
<td>Ionizing radiation</td>
</tr>
<tr>
<td>Measured radiation (pA/kg)</td>
<td>—</td>
</tr>
<tr>
<td>Measured high-voltage (kV)</td>
<td>—</td>
</tr>
<tr>
<td>Measured focus voltage (kV)</td>
<td>—</td>
</tr>
<tr>
<td>CRT markings</td>
<td>—</td>
</tr>
<tr>
<td>4.3.13.3</td>
<td>Effect of ultraviolet (UV) radiation on materials</td>
</tr>
<tr>
<td>Part, property, retention after test, flammability classification</td>
<td>—</td>
</tr>
<tr>
<td>4.3.13.4</td>
<td>Human exposure to ultraviolet (UV) radiation</td>
</tr>
<tr>
<td>4.3.13.5</td>
<td>Laser (including LEDs)</td>
</tr>
<tr>
<td>Laser class</td>
<td>—</td>
</tr>
</tbody>
</table>
### 4.3.13.6 Other types

<table>
<thead>
<tr>
<th>Other types</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.4 Protection against hazardous moving parts

<table>
<thead>
<tr>
<th>General</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4.4.1 General

|  | N |
|  |  |

#### 4.4.2 Protection in operator access areas

|  |  |
|  |  |

#### 4.4.3 Protection in restricted access locations

|  |  |
|  |  |

#### 4.4.4 Protection in service access areas

|  |  |
|  |  |

### 4.5 Thermal requirements

<table>
<thead>
<tr>
<th>Maximum temperatures</th>
<th>See appended table 4.5.1.</th>
</tr>
</thead>
</table>

#### 4.5.1 Maximum temperatures

<table>
<thead>
<tr>
<th>Normal load conditi on per Annex L</th>
<th>See 1.6.2.</th>
</tr>
</thead>
</table>

#### 4.5.2 Resistance to abnormal heat

<table>
<thead>
<tr>
<th>No direct mains connection.</th>
<th>N</th>
</tr>
</thead>
</table>

### 4.6 Openings in enclosures

<table>
<thead>
<tr>
<th>Top and side openings</th>
<th>See table 4.6.1</th>
</tr>
</thead>
</table>

#### 4.6.1 Top and side openings

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>See table 4.6.1</th>
</tr>
</thead>
</table>

#### 4.6.2 Bottoms of fire enclosures

<table>
<thead>
<tr>
<th>No bottom openings</th>
<th>P</th>
</tr>
</thead>
</table>

#### 4.6.3 Doors or covers in fire enclosures

<table>
<thead>
<tr>
<th>No doors or covers provided.</th>
<th>N</th>
</tr>
</thead>
</table>

#### 4.6.4 Openings in transportable equipment

<table>
<thead>
<tr>
<th>Not transportable equipment.</th>
<th>N</th>
</tr>
</thead>
</table>

#### 4.6.5 Adhesives for constructional purposes

<table>
<thead>
<tr>
<th>Not used.</th>
<th>N</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Conditioning temperature (°C)/time (weeks)</th>
<th></th>
</tr>
</thead>
</table>

### 4.7 Resistance to fire

<table>
<thead>
<tr>
<th>Reducing the risk of ignition and spread of flame</th>
<th>Use of materials with the required flammability classes.</th>
</tr>
</thead>
</table>

#### 4.7.1 Reducing the risk of ignition and spread of flame

<table>
<thead>
<tr>
<th>Method 1, selection and application of components wiring and materials</th>
<th></th>
</tr>
</thead>
</table>

#### 4.7.2 Conditions for a fire enclosure

<table>
<thead>
<tr>
<th>See below.</th>
<th>P</th>
</tr>
</thead>
</table>

#### 4.7.2.1 Parts requiring a fire enclosure

<table>
<thead>
<tr>
<th>With having the following parts: components in secondary (supplied by LPS) insulated wiring the fire enclosure is not required.</th>
<th>P</th>
</tr>
</thead>
</table>

#### 4.7.2.2 Parts not requiring a fire enclosure

|  | N |
|  |  |

### 4.7.3 Materials

<table>
<thead>
<tr>
<th>PCB is rated V-0.</th>
<th>P</th>
</tr>
</thead>
</table>

#### 4.7.3.1 General

<table>
<thead>
<tr>
<th>PCB is rated V-0.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4.7.3.2</td>
<td>Materials for fire enclosures</td>
</tr>
<tr>
<td>4.7.3.3</td>
<td>Materials for components and other parts outside fire enclosures</td>
</tr>
<tr>
<td>4.7.3.4</td>
<td>Materials for components and other parts inside fire enclosures</td>
</tr>
<tr>
<td>4.7.3.5</td>
<td>Materials for air filter assemblies</td>
</tr>
<tr>
<td>4.7.3.6</td>
<td>Materials used in high-voltage components</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
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<th>Specification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1</td>
<td>Touch current and protective conductor current</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1.1</td>
<td>General</td>
<td>See below.</td>
<td>P</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Equipment under test (EUT)</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1.3</td>
<td>Test circuit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.4</td>
<td>Application of measuring instrument</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Test procedure</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1.6</td>
<td>Test measurements</td>
<td>Class III equipment</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Test voltage (V) ........................................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Measured touch current (mA) .......................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Max. allowed touch current (mA) ................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td>5.1.7</td>
<td>Equipment with touch current exceeding 3.5 mA</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.1.8</td>
<td>Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks</td>
<td>No TNV connection.</td>
<td>N</td>
</tr>
<tr>
<td>5.1.8.1</td>
<td>Limitation of the touch current to a telecommunication network and a cable distribution system</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Test voltage (V) ........................................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Measured touch current (mA) .......................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Max. allowed touch current (mA) ................................................................</td>
<td></td>
<td>—</td>
</tr>
<tr>
<td>5.1.8.2</td>
<td>Summation of touch currents from telecommunication networks .....................</td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Specification</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2</td>
<td>Electric strength</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>5.2.1</td>
<td>General</td>
<td>Class III Product</td>
<td>N</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Test procedure</td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>
## 5.3 Abnormal operating and fault conditions

<table>
<thead>
<tr>
<th>5.3.1 Protection against overload and abnormal operation</th>
<th>Ventilation openings blocked and the DC fan rotor locked tests was considered as foreseeable misuse.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3.2 Motors</td>
<td>Approved DC fans used.</td>
<td>P</td>
</tr>
<tr>
<td>5.3.3 Transformers</td>
<td>Safety isolation transformer only provided in approved AC adaptor.</td>
<td>N</td>
</tr>
<tr>
<td>5.3.4 Functional insulation</td>
<td>Method c) considered.</td>
<td>P</td>
</tr>
<tr>
<td>5.3.5 Electromechanical components</td>
<td>No electromechanical components provided.</td>
<td>N</td>
</tr>
<tr>
<td>5.3.6 Simulation of faults</td>
<td>Faults in primary and secondary, components and functional insulation were already considered during the approval of the AC adaptor. Ventilation blocked and DC fan locked tests: Results see appended table 5.3.</td>
<td>P</td>
</tr>
<tr>
<td>5.3.7 Unattended equipment</td>
<td>Not unattended equipment.</td>
<td>N</td>
</tr>
<tr>
<td>5.3.8 Compliance criteria for abnormal operating and fault conditions</td>
<td>Complied.</td>
<td>P</td>
</tr>
</tbody>
</table>

## 6 CONNECTION TO TELECOMMUNICATION NETWORKS

(No TNV connections provided)

| 6.1 Protection of telecommunication network service persons, 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 the telecommunication wiring system from overheating | N |
Max. output current (A) ........................................ : —
Current limiting method ........................................ : —

7 CONNECTION TO CABLE DISTRIBUTION SYSTEMS

| 7.1 Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment | N |
| 7.2 Protection of equipment users from overvoltages on the cable distribution system | N |
| 7.3 Insulation between primary circuits and cable distribution systems | N |
| 7.3.1 General | N |
| 7.3.2 Voltage surge test | N |
| 7.3.3 Impulse test | N |

A ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE

<p>| 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 ............................................................... : — |
| Wall thickness (mm) ............................................ : — |
| A.1.2 Conditioning of samples; temperature (°C) ......... : N |
| A.1.3 Mounting of samples ............................................ : N |
| A.1.4 Test flame (see IEC 60695-11-3) | N |
| Flame A, B, C or D .............................................. : — |
| 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, material ............................................ : — |
| Wall thickness (mm) ............................................ : — |
| A.2.2 Conditioning of samples | N |
| A.2.3 Mounting of samples ............................................ : N |
| A.2.4 Test flame (see IEC 60695-11-4) | N |
| Flame A, B or C ........................................... : — |
| A.2.5 Test procedure | N |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>A.2.6</td>
<td>Compliance criteria</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Sample 1 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Sample 2 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Sample 3 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td>A.2.7</td>
<td>Alternative test acc. to IEC 60695-2-2, cl. 4 and 8</td>
<td>N</td>
</tr>
<tr>
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<td>Sample 1 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Sample 2 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Sample 3 burning time (s)</td>
<td>⎯</td>
</tr>
<tr>
<td>A.3</td>
<td>Hot flaming oil test (see 4.6.2)</td>
<td>N</td>
</tr>
<tr>
<td>A.3.1</td>
<td>Mounting of samples</td>
<td>N</td>
</tr>
<tr>
<td>A.3.2</td>
<td>Test procedure</td>
<td>N</td>
</tr>
<tr>
<td>A.3.3</td>
<td>Compliance criterion</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)</td>
<td>N</td>
</tr>
<tr>
<td>B.1</td>
<td>General requirements</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Position</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Manufacturer</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Type</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Rated values</td>
<td>⎯</td>
</tr>
<tr>
<td>B.2</td>
<td>Test conditions</td>
<td>N</td>
</tr>
<tr>
<td>B.3</td>
<td>Maximum temperatures</td>
<td>N</td>
</tr>
<tr>
<td>B.4</td>
<td>Running overload test</td>
<td>N</td>
</tr>
<tr>
<td>B.5</td>
<td>Locked-rotor overload test</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Test duration (days)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>Electric strength test: test voltage (V)</td>
<td>⎯</td>
</tr>
<tr>
<td>B.6</td>
<td>Running overload test for d.c. motors in secondary circuits</td>
<td>N</td>
</tr>
<tr>
<td>B.7</td>
<td>Locked-rotor overload test for d.c. motors in secondary circuits</td>
<td>N</td>
</tr>
<tr>
<td>B.7.1</td>
<td>Test procedure</td>
<td>N</td>
</tr>
<tr>
<td>B.7.2</td>
<td>Alternative test procedure; test time (h)</td>
<td>⎯</td>
</tr>
<tr>
<td>B.7.3</td>
<td>Electric strength test</td>
<td>N</td>
</tr>
<tr>
<td>B.8</td>
<td>Test for motors with capacitors</td>
<td>N</td>
</tr>
<tr>
<td>B.9</td>
<td>Test for three-phase motors</td>
<td>N</td>
</tr>
<tr>
<td>B.10</td>
<td>Test for series motors</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Operating voltage (V)</td>
<td>⎯</td>
</tr>
<tr>
<td></td>
<td>ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)</td>
<td>N</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>C.1</td>
<td>Overload test</td>
<td>N</td>
</tr>
<tr>
<td>C.2</td>
<td>Insulation</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Protection from displacement of windings</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.1</td>
<td>Measuring instrument</td>
<td>In approved AC adaptor</td>
</tr>
<tr>
<td>D.2</td>
<td>Alternative measuring instrument</td>
<td>N</td>
</tr>
</tbody>
</table>

|   | ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13) | N |

|   | ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10) | N |

<table>
<thead>
<tr>
<th></th>
<th>ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.1</td>
<td>Summary of the procedure for determining minimum clearances</td>
<td>N</td>
</tr>
<tr>
<td>G.2</td>
<td>Determination of mains transient voltage (V)</td>
<td>N</td>
</tr>
<tr>
<td>G.2.1</td>
<td>AC mains supply</td>
<td>N</td>
</tr>
<tr>
<td>G.2.2</td>
<td>DC mains supply</td>
<td>N</td>
</tr>
<tr>
<td>G.3</td>
<td>Determination of telecommunication network transient voltage (V)</td>
<td>N</td>
</tr>
<tr>
<td>G.4</td>
<td>Determination of required withstand voltage (V)</td>
<td>N</td>
</tr>
<tr>
<td>G.5</td>
<td>Measurement of transient levels (V)</td>
<td>N</td>
</tr>
<tr>
<td>G.6</td>
<td>Determination of minimum clearances</td>
<td>N</td>
</tr>
</tbody>
</table>

|   | ANNEX H, IONIZING RADIATION (see 4.3.13) | N |

<table>
<thead>
<tr>
<th></th>
<th>ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Metal used</td>
<td>—</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>L</th>
<th>ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.1</td>
<td>Typewriters</td>
<td>N</td>
</tr>
<tr>
<td>L.2</td>
<td>Adding machines and cash registers</td>
<td>N</td>
</tr>
<tr>
<td>L.3</td>
<td>Erasers</td>
<td>N</td>
</tr>
<tr>
<td>L.4</td>
<td>Pencil sharpeners</td>
<td>N</td>
</tr>
<tr>
<td>L.5</td>
<td>Duplicators and copy machines</td>
<td>N</td>
</tr>
<tr>
<td>L.6</td>
<td>Motor-operated files</td>
<td>N</td>
</tr>
<tr>
<td>L.7</td>
<td>Other business equipment</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M</th>
<th>ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.1</td>
<td>Introduction</td>
<td>N</td>
</tr>
<tr>
<td>M.2</td>
<td>Method A</td>
<td>N</td>
</tr>
<tr>
<td>M.3</td>
<td>Method B</td>
<td>N</td>
</tr>
<tr>
<td>M.3.1</td>
<td>Ringing signal</td>
<td>N</td>
</tr>
<tr>
<td>M.3.1.1</td>
<td>Frequency (Hz)</td>
<td>—</td>
</tr>
<tr>
<td>M.3.1.2</td>
<td>Voltage (V)</td>
<td>—</td>
</tr>
<tr>
<td>M.3.1.3</td>
<td>Cadence; time (s), voltage (V)</td>
<td>—</td>
</tr>
<tr>
<td>M.3.1.4</td>
<td>Single fault current (mA)</td>
<td>—</td>
</tr>
<tr>
<td>M.3.2</td>
<td>Tripping device and monitoring voltage</td>
<td>N</td>
</tr>
<tr>
<td>M.3.2.1</td>
<td>Conditions for use of a tripping device or a monitoring voltage</td>
<td>N</td>
</tr>
<tr>
<td>M.3.2.2</td>
<td>Tripping device</td>
<td>N</td>
</tr>
<tr>
<td>M.3.2.3</td>
<td>Monitoring voltage (V)</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>ANNEX N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.1</td>
<td>ITU-T impulse test generators</td>
<td>N</td>
</tr>
<tr>
<td>N.2</td>
<td>IEC 60065 impulse test generator</td>
<td>N</td>
</tr>
</tbody>
</table>

<p>| P | ANNEX P, NORMATIVE REFERENCES | P |</p>
<table>
<thead>
<tr>
<th>Annex</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>ANNEX Q, BIBLIOGRAPHY</td>
</tr>
<tr>
<td>R</td>
<td>ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES</td>
</tr>
<tr>
<td>R.1</td>
<td>Minimum separation distances for unpopulated coated printed boards (see 2.10.6)</td>
</tr>
<tr>
<td>R.2</td>
<td>Reduced clearances (see 2.10.3)</td>
</tr>
<tr>
<td>S</td>
<td>ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)</td>
</tr>
<tr>
<td>S.1</td>
<td>Test equipment</td>
</tr>
<tr>
<td>S.2</td>
<td>Test procedure</td>
</tr>
<tr>
<td>S.3</td>
<td>Examples of waveforms during impulse testing</td>
</tr>
<tr>
<td>T</td>
<td>ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)</td>
</tr>
<tr>
<td>U</td>
<td>ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)</td>
</tr>
<tr>
<td>V</td>
<td>ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)</td>
</tr>
<tr>
<td>V.1</td>
<td>Introduction</td>
</tr>
<tr>
<td>V.2</td>
<td>TN power distribution systems</td>
</tr>
<tr>
<td>V.3</td>
<td>TT power systems</td>
</tr>
<tr>
<td>V.4</td>
<td>IT power systems</td>
</tr>
<tr>
<td>W</td>
<td>ANNEX W, SUMMATION OF TOUCH CURRENTS</td>
</tr>
<tr>
<td>W.1</td>
<td>Touch current from electronic circuits</td>
</tr>
<tr>
<td>W.1.2</td>
<td>Earthed circuits</td>
</tr>
<tr>
<td>W.2</td>
<td>Interconnection of several equipments</td>
</tr>
<tr>
<td>W.2.1</td>
<td>Isolation</td>
</tr>
<tr>
<td>W.2.2</td>
<td>Common return, isolated from earth</td>
</tr>
<tr>
<td>W.2.3</td>
<td>Common return, connected to protective earth</td>
</tr>
<tr>
<td>X</td>
<td>ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)</td>
</tr>
<tr>
<td>X.1</td>
<td>Determination of maximum input current</td>
</tr>
<tr>
<td>X.2</td>
<td>Overload test procedure</td>
</tr>
<tr>
<td></td>
<td>ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Y</td>
<td>Test apparatus</td>
</tr>
<tr>
<td>Y.1</td>
<td>Mounting of test samples</td>
</tr>
<tr>
<td>Y.2</td>
<td>Carbon-arc light-exposure apparatus</td>
</tr>
<tr>
<td>Y.3</td>
<td>Xenon-arc light exposure apparatus</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
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<td>C: Delete all the &quot;country&quot; notes in the reference document according to the following list:</td>
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<tr>
<td></td>
<td>1.1.5 Note 2 1.5.8 Note 2 1.6.1 Note 1.7.2 Note 4 1.7.12 Note 2 2.6 Note 2.2.3 Note 2.2.4 Note 2.3.2 Note 1, 2 2.3.3 Note 1, 2 2.3.4 Note 2,3 2.7.1 Note 2.10.3.1 Note 4 3.2.1.1 Note 3.2.3 Note 1, 2 3.2.5.1 Note 2 4.3.6 Note 1,2 4.7.2.2 Note 4.7.3.1 Note 2 6.1.2.1 Note 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7 Note 4 7.1 Note G2.1 Note 1, 2 Annex H Note 2</td>
</tr>
<tr>
<td></td>
<td>Deleted.</td>
</tr>
<tr>
<td>1.2.4.1</td>
<td>S (DK): Certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.</td>
</tr>
<tr>
<td></td>
<td>No such switch.</td>
</tr>
<tr>
<td>1.5.1</td>
<td>A (SE, Ordinance 1990:944 and CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury): Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed.</td>
</tr>
<tr>
<td></td>
<td>No such switch.</td>
</tr>
<tr>
<td>1.5.8</td>
<td>S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).</td>
</tr>
<tr>
<td></td>
<td>In approved SPS used only.</td>
</tr>
<tr>
<td>1.7.2</td>
<td>S (FI, NO, SE): 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 in the applicable countries shall be as follows:</td>
</tr>
<tr>
<td></td>
<td>No power cord provided.</td>
</tr>
<tr>
<td>FI: &quot;Laite on liitettävä suoajamaadoitus-koskettimilla varustetuun pistorasiaan&quot;</td>
<td>Must be evaluated during national approval.</td>
</tr>
<tr>
<td>NO: &quot;Apparatet må tilkoples jordet stikkontakt&quot;</td>
<td>Must be evaluated during national approval.</td>
</tr>
<tr>
<td>SE: &quot;Apparaten skall anslutas till jordat uttag&quot;</td>
<td>Must be evaluated during national approval.</td>
</tr>
<tr>
<td>A (DK, Heavy Current Regulations): Supply cords of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text: Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket</td>
<td>Must be evaluated during national approval.</td>
</tr>
</tbody>
</table>
If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text:

"For tilslutning af de øvrige ledere, se medfølgende instalationsvejledning."

| 1.7.5 | S (DK): 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. | No outlets. | N |
| 1.7.5 | A (DK, Heavy Current Regulations): CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment. | No outlets. | N |
| 1.7.12 | A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment (Equipment safety law)], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph item 2): Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language. NOTE: Of this requirement, rules for use even only by service personnel are not exempted. | To be evaluated when submitted for national approval. | N |
| 1.7.15 | A (CH, Ordinance on environmentally hazardous substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries. | There is no battery containing Cd or Hg in the equipment. | N |
| | A (DE, Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4):  
a) A licence is required by those who operate an X-ray emission source.  
b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if  
1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and  
2) it is adequately indicated on the X-ray emission source that  
i) X-rays are generated and  
ii) the electron acceleration voltage must not | The unit does not emit X-ray radiation. | N |
exceed the maximum value stipulated by the manufacturer or importer.
c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if
1) the X-ray emission source has been granted a type approval and
2) it is adequately indicated on the X-ray emission source that
i) X-rays are generated
ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and
iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.
d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if
1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,
2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and
3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.

2.2.4 S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply. No TNV P

2.3.2 S (NO): Requirements according to this annex, 6.1.2.1 apply. No TNV P

2.3.3 and 2.3.4 S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply. No TNV P

2.6.3.3 S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A. No TNV P

2.7.1 C: 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

Replaced P
<p>| S (GB): | To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT. | Not direct plug-in equipment. | N |
| 2.7.2 C: | Void. | Void. | N |
| 2.10.2 C: | Replace in the first line &quot;(see also 1.4.7)&quot; by &quot;(see also 1.4.8)&quot;. | Considered. | P |
| 2.10.3.1 S (NO): | Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault | Considered. | P |
| 3.2.1.1 S (CH): | Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: | No power supply cord provided. | N |
| SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A | In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: |  |</p>
<table>
<thead>
<tr>
<th>Reference</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>S (DK): Supply cords 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.</td>
<td>No power supply cord provided.</td>
</tr>
<tr>
<td>CLASS I EQUIPMENT provided with socket-outlets with earth contacts 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. 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.</td>
<td></td>
</tr>
<tr>
<td>S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts 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 UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</td>
<td>No power supply cord provided.</td>
</tr>
<tr>
<td>S (GB): 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 1768:1994 – The Plugs and Socket etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE – ‘Standard plug’ is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</td>
<td>No power supply cord provided.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>3.2.3</td>
<td>C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses. <strong>Deleted.</strong></td>
</tr>
<tr>
<td>3.2.5.1</td>
<td>C: Replace &quot;60245 IEC 53&quot; by &quot;H05 RR-F&quot;; &quot;60227 IEC 52&quot; by &quot;H03 VV-F or H03 VVH2-F&quot;; &quot;60227 IEC 53&quot; by &quot;H05 VV-F or H05 VVH2-F2&quot;. In Table 3B, replace the first four lines by the following: Up to and including 6 0,75&lt;sup&gt;1)&lt;/sup&gt; Over 6 up to and including 10 (0,75)&lt;sup&gt;2)&lt;/sup&gt; 1,0 Over 10 up to and including 16 (1,0)&lt;sup&gt;3)&lt;/sup&gt; 1,5 In the Conditions applicable to Table 3B delete the words &quot;in some countries&quot; in condition 1). In Note 1, applicable to Table 3B, delete the second sentence. <strong>No power supply cord provided.</strong></td>
</tr>
<tr>
<td>3.2.5.1</td>
<td>S (GB): A power supply cord with conductor of 1,25 mm&lt;sup&gt;2&lt;/sup&gt; is allowed for equipment with a rated current over 10 A and up to and including 13 A. <strong>No power supply cord provided.</strong></td>
</tr>
<tr>
<td>3.3.4</td>
<td>C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: &quot;Over 10 up to and including 16 1,5 to 2,5 1,5 to 4&quot; Delete the fifth line: conductor sizes for 13 to 16 A. <strong>No power supply cord provided.</strong></td>
</tr>
<tr>
<td>3.3.4</td>
<td>S (GB): The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: - 1,25 mm&lt;sup&gt;2&lt;/sup&gt; to 1,5 mm&lt;sup&gt;2&lt;/sup&gt; nominal cross-sectional area. <strong>No power supply cord provided.</strong></td>
</tr>
<tr>
<td>4.3.6</td>
<td>S (GB): 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 ℃. <strong>Not direct plug-in equipment.</strong></td>
</tr>
</tbody>
</table>
S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.

<table>
<thead>
<tr>
<th>4.3.13.6</th>
<th>C: Add the following note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTE 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. Standards taking into account this recommendation are currently under development.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6.1.2.1</th>
<th>S (FI, NO, SE): Add the following text between the first and second paragraph:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</td>
<td></td>
</tr>
<tr>
<td>- two layers of thin sheet material, each of which shall pass the electric strength test below, or</td>
<td></td>
</tr>
<tr>
<td>- one layer having a distance through insulation of at least 0.4 mm, which shall pass the electric strength test below.</td>
<td></td>
</tr>
<tr>
<td>If this insulation forms part of a semiconductor component (e.g. an optocoupler), 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</td>
<td></td>
</tr>
<tr>
<td>- passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1.5 kV multiplied by 1.6 (the electric strength test of 2.10.7 shall be performed using 1.5 kV), and</td>
<td></td>
</tr>
<tr>
<td>- is subject to ROUTINGE TESTING for electric strength during manufacturing, using a test voltage of 1.5 kV.</td>
<td></td>
</tr>
<tr>
<td>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.</td>
<td></td>
</tr>
<tr>
<td>A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:</td>
<td></td>
</tr>
<tr>
<td>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2.5 kV defined in EN 60950:2000, 6.2.2.1;</td>
<td></td>
</tr>
<tr>
<td>- the additional testing shall be performed on all the test specimens as described in EN 132400;</td>
<td></td>
</tr>
</tbody>
</table>
- the impulse test of 2.5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.

<table>
<thead>
<tr>
<th>6.1.2.2 S (FI, NO, SE): 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.</th>
<th>Not permanently connected</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 S (FI, NO, SE): 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.</td>
<td>No TNV Circuit.</td>
<td>P</td>
</tr>
<tr>
<td>G.2.1 S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.</td>
<td>Shall be evaluated when national approval.</td>
<td>N</td>
</tr>
<tr>
<td>Annex H C: 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.</td>
<td>Replaced.</td>
<td>N</td>
</tr>
<tr>
<td>Annex P C: Replace the text of this annex by: See annex ZA.</td>
<td>Replaced.</td>
<td>N</td>
</tr>
<tr>
<td>Annex Q C: Replace the title of IEC 61032 by &quot;Protection of persons and equipment by enclosures – Probes for verification&quot;. Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE in Europe, the suggested document is EN 50083-1.</td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>
### Annex ZA

<table>
<thead>
<tr>
<th>C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).</td>
</tr>
<tr>
<td>NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>IEC 60050-151</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60050-195</td>
</tr>
<tr>
<td>HD 566 S1:1990</td>
<td>IEC 60085:1984</td>
</tr>
<tr>
<td>HD 611, 4.1.S1:1992</td>
<td>IEC 60216-4-1:1990</td>
</tr>
<tr>
<td>HD 21 1) Series</td>
<td>IEC 60227 (mod) Series</td>
</tr>
<tr>
<td>HD 22 2) Series</td>
<td>IEC 60245 (mod) Series</td>
</tr>
<tr>
<td>EN 60309 Series</td>
<td>IEC 60309 Series</td>
</tr>
<tr>
<td>EN 60320 Series</td>
<td>IEC 60320 (mod) Series</td>
</tr>
<tr>
<td>HD 384.3 S2:1995</td>
<td>IEC 60364-3 (mod):1993</td>
</tr>
<tr>
<td>EN 132400:1994 4)</td>
<td>IEC 60384-14:1993</td>
</tr>
<tr>
<td>EN 60417-1</td>
<td>IEC 60417-1</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60695-2-20:1995</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60695-10-2:1995</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60695-11-3:2000</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60695-11-4:2000</td>
</tr>
<tr>
<td>EN 60695-11-10:1999</td>
<td>IEC 60695-11-10:1999</td>
</tr>
<tr>
<td>EN 60730-1:2000</td>
<td>IEC 60730-1:1999 (mod)</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60825-9:1999</td>
</tr>
<tr>
<td>—</td>
<td>IEC 60885-1:1987</td>
</tr>
<tr>
<td>EN 60990:1999</td>
<td>IEC 60990:1999</td>
</tr>
<tr>
<td>—</td>
<td>IEC 61058-1:2000</td>
</tr>
<tr>
<td>EN ISO 179 Series</td>
<td>ISO 179 Series</td>
</tr>
<tr>
<td>—</td>
<td>ISO 262:1998</td>
</tr>
<tr>
<td>EN ISO 527 Series</td>
<td>ISO 527 Series</td>
</tr>
<tr>
<td>EN ISO 4892 Series</td>
<td>ISO 4892 Series</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------</td>
</tr>
</tbody>
</table>

1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series
2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series
3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001
4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14
1.5.1 TABLE: list of critical components

<table>
<thead>
<tr>
<th>Object/part no.</th>
<th>Manufacturer/trademark</th>
<th>Type/model</th>
<th>Technical data</th>
<th>Standard</th>
<th>Mark(s) of conformity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB</td>
<td>Various</td>
<td>Various</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC Adapter</td>
<td>Dee Van Enterprise Co. Ltd.</td>
<td>DSA-60W-12 b xyZ ( b=1or3, x is 3 digital number, y is 2 digital number, Z is 2 digital number)</td>
<td>i/p: 100-240Vac, 50/60Hz, 1.5A o/p:12Vdc, 5A L.P.S.</td>
<td>IEC 60950-1</td>
<td>TUV</td>
</tr>
<tr>
<td>System Fan</td>
<td>Bi-sonic Technology Corp.</td>
<td>SP702012L</td>
<td>12 Vdc, 0.15A max. 19.81 CFM</td>
<td>EN 60950-1, UL 507</td>
<td>TUV</td>
</tr>
<tr>
<td>RTC Battery</td>
<td>Matsushita Electric Corp. of America</td>
<td>CR2032</td>
<td>Max. Abnormal Charging current 10 mA</td>
<td>UL1642</td>
<td>UL</td>
</tr>
<tr>
<td>Hard Disk Driver</td>
<td>Various</td>
<td>Various</td>
<td>5Vdc , 1.0A max.</td>
<td>IEC 60950-1</td>
<td>TUV</td>
</tr>
<tr>
<td>Polyswitch</td>
<td>Polytronics Technology Corp.</td>
<td>SMD1206P075 F</td>
<td>8V dc, Ih :0.75A It : 1.5A,</td>
<td>EN 60730-1</td>
<td>TUV</td>
</tr>
</tbody>
</table>

Note(s):

1.6.2 TABLE: electrical data (in normal conditions)

<table>
<thead>
<tr>
<th>Fuse #</th>
<th>Irated (A)</th>
<th>U (V)</th>
<th>P (W)</th>
<th>I (mA)</th>
<th>Ifuse (mA)</th>
<th>Condition/status</th>
</tr>
</thead>
<tbody>
<tr>
<td>--</td>
<td>5</td>
<td>12Vdc</td>
<td>28.68</td>
<td>2390</td>
<td>--</td>
<td>Max. Normal Load</td>
</tr>
</tbody>
</table>

Note(s): Max. normal load: 2 set of Hard Disk Device continuously accessed and add dummy load USB 5V/0.5A * 3 ports.

2.5 TABLE: limited power source measurement

<table>
<thead>
<tr>
<th>Limits</th>
<th>Measured</th>
<th>Verdict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uoc = 4.99 V (measured under no load conditions, for front USB port)</td>
<td>≤8</td>
<td>1.9</td>
</tr>
<tr>
<td>current (in A)</td>
<td>≤5*Uoc(25VA)</td>
<td>7.66</td>
</tr>
<tr>
<td>power (in VA)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Uoc = 4.99 V (measured under no load conditions, for rear USB port up)

<table>
<thead>
<tr>
<th>current (in A)</th>
<th>≤8</th>
<th>1.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>power (in VA)</td>
<td>≤5*Uoc(25VA)</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Uoc = 4.99 V (measured under no load conditions, for rear USB port down)

<table>
<thead>
<tr>
<th>current (in A)</th>
<th>≤8</th>
<th>1.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>power (in VA)</td>
<td>≤5*Uoc(25VA)</td>
<td>7.43</td>
</tr>
</tbody>
</table>

Note:

4.5.1 TABLE: maximum temperatures

<table>
<thead>
<tr>
<th>test voltage (V)</th>
<th>12Vdc</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t1 (°C)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>t2 (°C)</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Maximum temperature T of part/at:

<table>
<thead>
<tr>
<th>T (°C)</th>
<th>allowed T_max (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Normal Load</td>
<td>--</td>
</tr>
<tr>
<td>1.Adapter Enclosure</td>
<td>54</td>
</tr>
<tr>
<td>2.U12 near PCB</td>
<td>39</td>
</tr>
<tr>
<td>3.U6 near PCB</td>
<td>52</td>
</tr>
<tr>
<td>4.U18 near PCB</td>
<td>49</td>
</tr>
<tr>
<td>5.L16 coil</td>
<td>50</td>
</tr>
<tr>
<td>6.L22 body</td>
<td>56</td>
</tr>
<tr>
<td>7.HDD1</td>
<td>50</td>
</tr>
<tr>
<td>8.HDD2</td>
<td>45</td>
</tr>
<tr>
<td>9.Front of plastic enclosure (inside)</td>
<td>42</td>
</tr>
<tr>
<td>10.Front of plastic enclosure (outside)</td>
<td>41</td>
</tr>
<tr>
<td>11.Top of metal enclosure</td>
<td>40</td>
</tr>
<tr>
<td>12.Ambient</td>
<td>35</td>
</tr>
</tbody>
</table>

Temperature T of winding:

<table>
<thead>
<tr>
<th>R1 (Ω)</th>
<th>R2 (Ω)</th>
<th>T (°C)</th>
<th>allowed T_max (°C)</th>
</tr>
</thead>
</table>

Note(s):

1. The temperatures were measured under worst case normal mode defined in Max. Normal Load and as described in 1.6.2 at voltages as above.

2. With a specified ambient temperature of 35°C, the max. temperature rise is calculated as follows:
PCB or components with:

For Choke: Class A, Tmax = 105 °C
For PCB: Tmax = 105°C

Touchable surfaces:
- maximum temp. of 95 °C (plastic) / 70 °C (Metal)

4.6.1, 4.6.2 Table: enclosure openings

<table>
<thead>
<tr>
<th>Location</th>
<th>Size (mm)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>--</td>
<td>None</td>
</tr>
<tr>
<td>Rear</td>
<td>2.46 each dimension</td>
<td>No hazardous parts are located behind in the 5º projection area.</td>
</tr>
<tr>
<td>Left Side</td>
<td>1.7 diameter</td>
<td>No hazardous parts are located behind in the 5º projection area.</td>
</tr>
<tr>
<td>Right Side</td>
<td>1.7 diameter</td>
<td>No hazardous parts are located behind in the 5º projection area.</td>
</tr>
<tr>
<td>Bottom</td>
<td>--</td>
<td>None</td>
</tr>
</tbody>
</table>

Note(s):

4.7 Table: resistance to fire

<table>
<thead>
<tr>
<th>Part</th>
<th>Manufacturer of material</th>
<th>Type of material</th>
<th>Thickness (mm)</th>
<th>Flammability class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal enclosure</td>
<td>--</td>
<td>--</td>
<td>0.4</td>
<td>--</td>
</tr>
</tbody>
</table>

Note(s): 金属外壳

5.3 TABLE: fault condition tests

<table>
<thead>
<tr>
<th>No.</th>
<th>Component no.</th>
<th>Fault</th>
<th>Test voltage (V)</th>
<th>Test time</th>
<th>Fuse no.</th>
<th>Fuse current (A)</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ventilation openings</td>
<td>blocked</td>
<td>12 Vdc</td>
<td>7 hrs</td>
<td>--</td>
<td>--</td>
<td>Temperature of all parts stabled at: U12 near PCB = 39°C, U6 near PCB = 51°C, U18 near PCB = 51°C, L16 Coil = 49°C, L22 Coil = 58°C, Ambient = 26°C, NC, NT, No hazardous.</td>
</tr>
<tr>
<td>No.</td>
<td>Component</td>
<td>Condition</td>
<td>Voltage</td>
<td>Duration</td>
<td>Current</td>
<td>Temperature of Parts</td>
<td>Notes</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------</td>
<td>-----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>----------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>System DC Fan</td>
<td>Locked</td>
<td>12 Vdc</td>
<td>7 hrs</td>
<td>--</td>
<td>--</td>
<td>Temperature of all parts stabled at: U12 near PCB = 45°C, U6 near PCB = 63°C, U18 near PCB = 58°C, L16 Coil = 64°C, L22 Coil = 69°C, Ambient = 26°C, NC, NT, No hazardous.</td>
</tr>
<tr>
<td>3</td>
<td>USB # 1 Pin 1</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>1 h</td>
<td>--</td>
<td>--</td>
<td>NT, NC(4.99V,1900mA)</td>
</tr>
<tr>
<td>4</td>
<td>USB # 1 Pin 2 ~ 4</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>C</td>
</tr>
<tr>
<td>5</td>
<td>USB # 2 Pin 1</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>1 h</td>
<td>--</td>
<td>--</td>
<td>NT, NC(4.99V,1800mA)</td>
</tr>
<tr>
<td>6</td>
<td>USB # 2 Pin 2 ~ 4</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>C</td>
</tr>
<tr>
<td>7</td>
<td>USB # 3 Pin 1</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>1 h</td>
<td>--</td>
<td>--</td>
<td>NT, NC(4.99V,1800mA)</td>
</tr>
<tr>
<td>8</td>
<td>USB # 3 Pin 2 ~ 4</td>
<td>Overload</td>
<td>12 Vdc</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>C</td>
</tr>
<tr>
<td>9</td>
<td>D3 pin2-pin3</td>
<td>Short</td>
<td>3.3V</td>
<td>1 min</td>
<td>--</td>
<td>--</td>
<td>Abnormal charging current flow to RTC is 3 mA</td>
</tr>
<tr>
<td>10</td>
<td>R217</td>
<td>Short</td>
<td>3.3V</td>
<td>1 min</td>
<td>--</td>
<td>--</td>
<td>Abnormal charging current flow to RTC is 0 mA</td>
</tr>
</tbody>
</table>

Note(s): S-c = Short-circuit, O-c = Open circuit, Dis = Disconnection, O-l = Overload, o/p = output
NC = Cheesecloth remained intact, NT = Tissue paper remained intact
產品照片
RTC

USB

P/N: 24B06-000003-BS

Ref. No. 07LS037LV