SCOPE 6 ЛИК

**BUSINESS INNOVATION CENTER – IZOT AD**

**CENTER FOR TESTING OF ELECTRONIC AND OFFICE EQUIPMENT**

**Management address:** 1784 Sofia, 133 Tsarigradsko Shosse Blvd

**Laboratory address:** 1784 Sofia, 133 Tsarigradsko Shosse Blvd, Floor 4

**To perform testing of:**

| **Type of the scope**: *flexible* | | | |
| --- | --- | --- | --- |
| **№** | **Tested products** | **Type of test/ characteristic** | **Testing methods**  **(standard/ validated method)** |
| 1 | 2 | 3 | 4 |
| 1. | Audio/video, information and communication technology equipment | Protection from hazards (protection from electric shock and energy hazards) | БДС ЕN IEC 62368-1,  cl. 5.3.2.1, cl. 5.3.2.2 |
| Voltage to accessible parts SELV circuits | БДС ЕN IEC 62368-1,  cl. 5.2.2.2, cl. 5.2.2.4,  cl. 5.2.2.5 |
| Protective eathing, transient resistance | БДС ЕN IEC 62368-1, cl. 5.6 |
| Thermal requirements | БДС ЕN IEC 62368-1,  cl. 5.4.1.4 (5.4.1.4.2) |
| Touch current and protective conductor current | БДС ЕN IEC 62368-1,   cl. 5.2.2.2, cl. 5.7.3,  cl. 5.7.4, cl. 5.7.5 |
| Electric strength | БДС ЕN IEC 62368-1,  cl. 5.4.1.3, cl. 5.4.5,  cl. 5.4.5.2, cl. 5.4.8,  cl. 5.4.9.2 |
| Protection from electric shock hazard under normal operating condition | БДС ЕN IEC 62368-1,  cl. 5.3.2.2 |
| Heating under normal operating conditions (temperature rise ΔT) | БДС ЕN IEC 62368-1,  cl. 5.4.1.4, cl. 5.4.1.10 |
| Leakage current | БДС ЕN IEC 62368-1,  cl. 5.3.2.2, cl. 5.7.2.1 |
| Moisture resistance of the insulation | БДС ЕN IEC 62368-1,  cl. 5.4.1.3, cl. 5.4.5,  cl. 5.4.5.2, cl. 5.4.8 |
| Insulation resistance | БДС ЕN IEC 62368-1,  cl. 5.4.1.3, cl. 5.4.5,  cl. 5.4.5.2, cl. 5.4.8 |
| 2. | Household and similar electrical appliances | Protection against access to live parts | БДС EN 60335-1 and the relevant part 2, cl. 8 (cl. 8.1.1, 8.1.2 and 8.1.3) \* |
| Voltage of accessible parts - ELV | БДС EN 60335-1 and the relevant part 2, cl. 8.1.4\* |
| Rated current | БДС EN 60335-1 and the relevant part 2, cl. 10.2\* |
| Leakage current when using a protective impedance (accessible parts)  Leakage current | БДС EN 60335-1 and the relevant part 2, cl. 8.1.4  (БДС EN 60990) cl. 13\* |
| Electric strength | БДС EN 60335-1 and the relevant part 2, cl. 16.3  (БДС EN 61180)\* |
| Protective eathing, transient resistance | БДС EN 60335-1 and the relevant part 2, cl. 27\* |
| 3. | Luminaries | Protection against indirect contact  (earthing means) | БДС EN IEC 60598-1, cl. 7.2.3 |
| Insulation resistance | БДС EN IEC 60598-1,  cl. 10.2.1 |
| Thermal test (normal operation) | БДС EN IEC 60598-1,  cl. 12.4; 12.5; 12.6 |
| 4. | Medical electrical equipment | Protective earthing, transient resistance | БДС EN 60601-1, cl. 8.6 |
| Leakage current | БДС EN 60601-1, cl. 8.7 |
| Electric strength | БДС EN 60601-1, cl. 8.8 |
| 5. | Electrical equipment for measurement, control  and laboratory use | Determination of accessible parts (Protection against electric shock) | БДС ЕN 61010-1,  cl. 6.2.1, 6.2.2, 6.2.3 |
| Limit values for accessible parts   * voltage | БДС ЕN 61010-1,  cl. 6.3.1 a) |
| * current levels (current per accessible part) | БДС ЕN 61010-1,  cl. 6.3.1 b) (IEC 60990) |
| Protective bonding (earting), impedance of protective bonding | БДС ЕN 61010-1,  cl. 6.5.3.1 |
| Electric strength | БДС ЕN 61010-1, cl. 6.8 (6.8.2 to 6.8.4) |
| 6. | Transformers, adaptors, power supply units and combinations thereof | Protection against electric shock   * touch voltage | БДС EN IEC 61558-1, cl. 9.1 a) |
| * touch current | БДС EN IEC 61558-1, cl. 9.1 b) |
| Insulation resistance | БДС EN IEC 61558-1, cl. 18.2 |
| Electric strength | БДС EN IEC 61558-1, cl. 18.3 |
| Protective eathing, transient resistance | БДС EN IEC 61558-1, cl. 24.4 |
| 7. | Circuit-breakers for overcurrent protection for household and similar installations | Electric shock hazard | БДС EN 60898, cl. 8.6 |
| Insulation resistance | БДС EN 60898, cl. 8.7 |
| Electric strength | БДС EN 60898, cl. 8.7 |
| 8. | Electrical equipment of machines | Insulation resistance | БДС EN 60204-1, cl. 18.3 |
| Electric strength | БДС EN 60204-1, cl. 18.4 |
| 9. | Toys | Determination of emission sound pressure levels | БДС EN 71-1, cl. 8.28 |
| 10. | Electric toys | Moisture resistance | БДС EN IEC 62115, cl. 11 |
| Electric strength | БДС EN IEC 62115, cl. 12 |
| 11. | Electrical equipments | Degrees of protections provided by enclosures (IP code)   * To hazardous parts * against solid foreign objects * against ingress of water | БДС EN 60529,  cl. 12.2, Table І  cl. 13.2, Table ІІ  cl. 14.2.1 to cl. 14.2.6, Table ІІІ |
| 11. | Electrical products, components and equipment (including taxis) | Testing Cab: Damp heat, steady state | БДС ЕN 60068-2-78 |
| Testing Db: Damp heat, cyclic | БДС ЕN 60068-2-30 |
| Testing B: Dry heat | БДС ЕN 60068-2-2 |
| Testing A: Cold type | БДС ЕN 60068-2-1 |

**Notes:** \* the relevant part 2 of the standards from БДС EN 60335-2-2 to БДС EN 60335-2-109.

*\*\*****Flexible scope:*** *Implementing a new version of standards/documents or standards/documents replacing them is allowed. An updated list of standards/documents and their dated versions is provided by laboratory.*

**To perform calibration of:**

| **Type of the scope:** *fixed* | | | | | |
| --- | --- | --- | --- | --- | --- |
| **№** | Type of measuring instrument | Measured quantuty, measurement unit | Measurement  range | Measurement  uncertainty | Calibration method |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1. | Thermometers  (liquid, digital) | Temperature  °C | From -40°С to 0°С | 0,07°С to 0,08°С | МК 504-01-01  (2012) |
| From 0°С to 100°С | 0,08°С to 0,10°С |
| From 100°С to 150°С | 0,10°С to 0,25°С |
| From 150°С to 200°С | 0,25°С to 0,40°С |
| 2. | Higrometers for relative humidity | Relative humidity,  %RH | From 20%  to 90% RH | From 1,9% to  2,6% RH | МК 504-03-01 (2020)  МК 504-04-01  (2020) |

Calibration of the specified measuring instruments is performed in the laboratory.

**References:**

МК 504-1-01:2012 Calibration procedure to measurement instruments for measuring temperature.

МК 504-3-01:2020 Calibration procedure to measurement instruments for measuring Relative humidity in the salt hygrostat.

МК 504-4-01:2020 Calibration procedure to measurement instruments for measuring Relative humidity in the climatic chamber.