Korea Laboratory Accreditation Scheme

CERTIFICATE OF ACCREDITATION

HCT Co., Ltd.

Accreditation No. : KT197

Corporation Registration No. : 134411-0015635

Address of Laboratory : (Branch site) 2-6, 73, 74 Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
(Satellite facilities-2) 37, Cheoldobangmulgwan-ro, Uiwang-si, Gyeonggi-do, Republic of Korea
(Satellite facilities-3) 304, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Date of Initial Accreditation : March 28, 2003

Validity of Accreditation : December 22, 2023 ~ December 21, 2027

Scope of Accreditation : Attached Annex

Date of issue : April 07, 2026

This testing laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to Joint ISO-ILAC-IAF Communiqué).

ilac-MRA

KOREA LABORATORY ACCREDITATION SCHEME KOLAS

Kim daejin

Head
Korea Laboratory Accreditation Scheme

Korea Laboratory Accreditation Scheme(KOLAS) is a signatory to the ILAC Mutual Recognition Arrangement

03. Electrical Testing

03.004 Electrical materials and components

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ANSI/CAN/UL 1973:2022	Electrical materials and components	Batteries for Use in Stationary, And Motive Auxiliary Power Applicantions	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
ANSI/CAN/UL/ULC 2271:2023	Electrical materials and components	Batteries for Use In Light Electric Vehicle (LEV) Applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
E/ECE/324/Rev.2/Add.135/Amend.1-E/ECE/TRANS/505/Rev.2/Add.135/Amend.1	Electrical materials and components	Addendum 135 – Regulation No. 136, Amendment 1 Uniform provisions concerning the approval of vehicles of category L with regard to specific requirements for the electric power train, Annex 9: REESS test procedures [Exception] Annex 9E Fire resistance	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Frequency:(7 ~ 200) Hz Acceleration:(1 ~ 100) m/s2 Shock Acceleration:(200 ~ 1 962) m/s2	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
E/ECE/324/Rev.2/Add.99/Rev.3/Amend.3-E/ECE/TRANS/505/Rev.2/Add.99/Rev.3/Amend.3	Electrical materials and components	Addendum 99 - Regulation No. 100, Revision 3- Amendment 3 Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train, Annex 9: REESS test procedures [Exception] Annex 9C Mechanical shock Annex 9E Fire resistance Annex 9F External short circuit protection 3.1.(d) For testing with a complete vehicle Annex 9G Overcharge protection 3.2.1 ~ 3.2.3 vehicle-based test Annex 9H Overdischarge protection 3.2.1 ~ 3.2.3 vehicle-based test Annex 9I Overtemperature protection 5 ~ 6 complete vehicle test Annex 9J Over-current protection 5 Overcurrent during charging using breakout harness.	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Frequency:(7 ~ 200) Hz Acceleration:(1 ~ 100) m/s2 Force: Max 195 kN	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62133-1:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 1:Nickel systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N
EN 62133-2:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2:Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
EN 62133-2:2017 +A1:2021	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62133:2013	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure:(10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N
IEC 60086-4:2014	Electrical materials and components	Primary batteries – Part 4: Safety of lithium batteries	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
IEC 60086-4:2019	Electrical materials and components	Primary batteries – Part 4: Safety of lithium batteries	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61960-3:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium cells and batteries for portable applications – Part 3: Prismatic and cylindrical lithium secondary cells,and batteries made from them	DC voltage:(-5 ~ 150) V DC current:(-250 ~ 250) A Temperature:(-65 ~ 200) °C	BS	N
IEC 62133-1:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 1:Nickel systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N
IEC 62133-2:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62133-2:2017 /AMD1:2021	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
IEC 62133:2012	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N
IEC 62281:2019	Electrical materials and components	Safety of primary and secondary lithium cells and batteries during transport	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62619:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 62619:2022	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 62620:2014	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium cells and batteries for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 62660-1:2018	Electrical materials and components	Secondary lithium-ion cells for the propulsion of electric road vehicles – Part 1:Performance testing	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62660-2:2018	Electrical materials and components	Secondary lithium-ion cells for the propulsion of electric road vehicles – Part 2: Reliability and abuse testing	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Vibration:(10 ~ 2 000) Hz, (0.14 ~ 20) $(m/s^2)2/Hz$ r.m.s. acceleration 27.8 m/s^2	BS	N
IEC 62660-3:2016	Electrical materials and components	Secondary lithium-ion cells for the propulsion of electric road vehicles – Part 3: Safety requirements	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 62660-3:2022	Electrical materials and components	Secondary lithium-ion cells for the propulsion of electric road vehicles – Part 3: Safety requirements	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 63056:2020	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries for use in electrical energy storage systems	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
IEC 63057:2020	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium batteries for use in road vehicles not for the propulsion	DC:(-5 ~ 60) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 50)Hz, (2 ~ 10) m/s^2	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
JIS C 62133-2:2020	Electrical materials and components	Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
KC 62133-2:2025	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2:Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure:(10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
KC 62619:2019	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for secondary Lithium cells and batteries, for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62619:2023	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
KS C IEC 61960-3:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium cells and batteries for portable applications – Part 3:Prismatic and cylindrical lithium secondary cells, and batteries made from them	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C	BS	N
KS C IEC 62133-1:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 1:Nickel systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure:(10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 62133-2:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2:Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
KS C IEC 62133-2:2021	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
KS C IEC 62619:2022	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
KS C IEC 62620:2014	Electrical materials and components	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for use in industrial applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
Ministerial Ordinance 1,Appendix 9:2008	Electrical materials and components	Technical requirement by the Ministerial Ordinance for electrical appliance Ministerial Ordinance 1, Appendix 9 Lithium ion secondary batteries	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N
SPS-C KBIA-10100-02-7487:2022	Electrical materials and components	Secondary lithium batteries for small unmanned aerial vehicle — performance test method	DC:(0 ~ 80) V DC:(-250 ~ 250) A Temperature:(-50 ~ 100) °C	BS	N
SPS-C KBIA-10104-03-7312:2025	Electrical materials and components	Secondary Battery Systems for Battery Energy Storage - Performance and Safety Requirements	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A 온도:(-65 ~ 200) °C	BS	N
ST/SG/AC.10/11/Rev.7:2019	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS –Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries)	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ST/SG/AC.10/11/Rev.7:Amend.1:2021	Electrical materials and components	Recommendations on the TRANSPORT OF DANGEROUS GOODS–Manual of Tests and Criteria (38.3 Lithium metal and lithium ion batteries)	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
ST/SG/AC.10/11/Rev.8/Amend.1:2025	Electrical materials and components	Manual of Tests and Criteria (38.3 Lithium metal, lithium ion and sodium ion batteries)	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
ST/SG/AC.10/11/Rev.8:2023	Electrical materials and components	Manual of Tests and Criteria (38.3 Lithium metal, lithium ion and sodium ion batteries)	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
UL 1642:2020	Electrical materials and components	Lithium Batteries	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
UL 1973:2018	Electrical materials and components	Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
UL 2054:Edition 3:2022	Electrical materials and components	Household and Commercial Batteries	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(7 ~ 200) Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
UL 2580:2020	Electrical materials and components	Batteries for Use In Electric Vehicles	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Vibration:(10 ~ 2 000) Hz, (0.14 ~ 20) $(m/s^2)2/Hz$ r.m.s. acceleration 27.8 m/s^2	BS	N
UL 2595:2018	Electrical materials and components	General requirements for Battery-Powered Appliances	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C	BS	N
UL 62133-2:2020	Electrical materials and components	Secondary cells and batteries containing alkaline or other non - acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2:Lithium Systems	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~200) °C Vibration:(7 ~ 200)Hz, (Displacement amplitude 0.8 mm, Maximum displacement width 1.6 mm)	BS	N
UL 62133:2017	Electrical materials and components	Secondary cells and batteries containing alkaline or other non - acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications circuit (cells)	DC:(-5 ~ 150) V DC:(-250 ~ 250) A Temperature:(-65 ~ 200) °C Pressure: (10.0 ~ 11.6) kPa Vibration:(10 ~ 55) Hz, (Displacement amplitude 0.76 mm, Maximum displacement width 1.52 mm)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MOLIT Notice No.2025-73 (2.17.2025.)	Electrical materials and components	Performance and standards enforcement regulations for automobiles and automobile parts [Attachment 1] No. 48 Safety test for drive battery [Exception] 48.7.3 Fire resistance 48.7.4.3.4 External short circuit protection for testing with a complete vehicle 48.7.5.3.5.1 ~ 48.7.5.3.5.3 Overcharge protection for testing with a complete vehicle 48.7.6.3.5.1 ~ 48.7.6.3.5.3 Overdischarge protection for testing with a complete vehicle 48.7.7.2.2, 48.7.7.3.2 Over-temperature protection for testing with a complete vehicle 48.7.8.3.1 Over-current protection 48.7.10 Mechanical shock 48.8.3 Fire resistance 48.8.9 shock [Attachment 1] No. 48-2 Safety test of drive battery of two-wheeled vehicle [Exception] 48의2.7.3 Fire resistance 48-2.7.5.3.5.1 Overcharge protection for testing with a complete vehicle	DC:(-5 ~ 1 500) V DC:(-1 000 ~ 1 000) A Temperature:(-65 ~ 200) °C Frequency:(7 ~ 200) Hz Acceleration:(1 ~ 100) m/s2 Force: Max 195 kN Salinity:(1 ~ 15) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		48-2.7.6.3.5.1 Overdischarge protection for testing with a complete vehicle 48-2.7.7.2.2, 48-2.7.7.3.2 Overtemperature protection for testing with a complete vehicle			

03. Electrical Testing

03.005 Measuring instruments

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61010-1:2010	Measuring instruments	Safety requirement for electrical equipment for measurement, control and laboratory use - Part 1:General requirements [Exception] 10.5.3 Insulating materials (Vicat) 11.7 Fluid pressure & leakage 12.2.1 Ionizing radiation 12.3 UV Radiation 12.4 Microwave Radiation 12.5.1 Sound pressure level 12.5.2 Ultrasonic pressure 12.6 Laser sources 13.2.3 High vacuum devices Annex H Qualification of conformal coating for protection against pollution	Single-phase input voltage: Less than AC 300 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 5) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (0 ~ 200)°C Relative humidity: Less than 96 % R.H.	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61010-1:2010 +A1:2019	Measuring instruments	Safety requirement for electrical equipment for measurement, control and laboratory use - Part 1:General requirements [Exception] 10.5.3 Insulating materials (Vicat) 11.7 Fluid pressure & leakage 12.2 Equipment producing ionizing radiation 12.3 UV Radiation 12.4 Microwave Radiation 12.5 Sound level 12.6 Laser sources 13.2.3 Implosion of cathode ray tubes Annex H Qualification of conformal coating for protection against pollution	Single-phase input voltage: Less than AC 300 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 5) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (0 ~ 200)°C Relative humidity: Less than 96 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61010-1 Edition 3.1(2017)	Measuring instruments	Safety requirement for electrical equipment for measurement, control and laboratory use - Part 1: General requirements [Exception] 10.5.3 Insulating materials (Vicat) 11.7 Fluid pressure & leakage 12.2 Equipment producing ionizing radiation 12.3 UV Radiation 12.4 Microwave Radiation 12.5 Sound level 12.6 Laser sources 13.2.3 Implosion of cathode ray tubes Annex H Qualification of conformal coating for protection against pollution	Single-phase input voltage: Less than AC 300 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 5) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (0 ~ 200)°C Relative humidity: Less than 96 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 61010-1:2010	Measuring instruments	Safety requirement for electrical equipment for measurement, control and laboratory use - Part 1: General requirements [Exception] 10.5.3 Insulating materials (Vicat) 11.7 Fluid pressure & leakage 12.2 Equipment producing ionizing radiation 12.3 UV Radiation 12.4 Microwave Radiation 12.5 Sound level 12.6 Laser sources 13.2.3 Implosion of cathode ray tubes Annex H Qualification of conformal coating for protection against pollution	Single phase Input Voltage: less than AC 300 V Input Current: less than 20 A Frequency: (50 ~ 60) Hz Electric Strength: (0 ~ 5) kV Leakage: less than (0 ~ 10) mA Earth Continuity voltage: less than 12 V Earth Continuity current: less than 45 A Temperature: (0 ~ 200) °C Humidity: less than 96 % R.H.	BS	N

03. Electrical Testing

03.007 Electrical machinery for households

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 60950.1:2011	Electrical machinery for households	Information technology equipment - Safety Part 1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/NZS 60950.1:2015	Electrical machinery for households	Information technology equipment - Safety Part 1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N
AS/NZS 62368.1:2018	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safety requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiations / Laser (including laser diodes) 10 Radiations / Light emitting diodes (LEDs) 10 Radiations / X-ray 10 Radiations / Effect of UV radiation on materials (Annex C) 10 Radiations / Human	Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		exposure to UV radiation (Annex C) Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 IC current limiters Annex G.13.6.2 Test method and compliance criteria Annex G.13.6.2 Abrasion resistance test Annex G.15 Hydrostatic pressure Annex G.15 Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8.2 Protection against internal ignition from external spark sources – Spark Test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in Annex S.3.2 Annex U Mechanical strength of CRTs and protection against the effects of implosion			
AS/NZS 62368.1:2022	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safety requirements	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		[Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiations / Laser (including laser diodes) 10 Radiations / Light emitting diodes (LEDs) 10 Radiations	Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		/ X-ray 10 Radiations / Effect of UV radiation on materials (Annex C) 10 Radiations / Human exposure to UV radiation (Annex C)			
CAN/CSA-C22.2 No. 60065:03	Electrical machinery for households	Audio, Video and similar electronic apparatus - Safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laser radiation 7.2 Softening Temperature 12.3 REMOTE CONTROL devices held in hand 14.2 Capacitor 14.6 Switch 16.1 Flexible cords, not complying with 16.1 etc. 17.7 Coed Torque 18. Mechanical strength of picture tubes and protection against splashing water ANNEX A Additional requirements for apparatus with protection against splashing water ANNEX H Insulation winding wires for use without interleaved insulation	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CAN/CSA-C22.2 No. 60065:16	Electrical machinery for households	Audio, Video and similar electronic apparatus - Safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laser radiation 6.3 Light emitting diodes (LEDs) 7.2 Heat resistance of insulating material 12.3 REMOTE CONTROL device sheldinhand 14.3 Capacitors and RC-units 14.7 Switch 16 External flexible cords 16.1 Flexible cords, not complying with 16.1 etc.) 17.7 Cord Torque 18. Mechanical strength of picture tubes and protection against the effects of implosion ANNEX AA Additional requirements for apparatus with protection against splashing water ANNEX H Insulated winding wires for use without interleaved insulation	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CAN/CSA-C22.2 No. 60950-1A-07	Electrical machinery for households	Information technology equipment - Safety Part1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-1:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-1:2012 /A11:2014	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-1:2012 /A2:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-11:2010/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-11:2010/A1:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-13:2010	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-13:2010/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-13:2010/A1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-14:2006+A1:2008+A11:2012+A12:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-15:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15:Particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-15:2016/A11:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15 : particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-15:2016/A12:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15 : particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-15:2016/A1:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15 : particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-15:2016/A2:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15 : particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-16:2003+A1:2008+A2:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-16:2003/A11:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-21:2003+A1:2005+A2:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-21:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-21:2021/A1:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-23:2003+A1:2008+A11:2010	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-23:2003+A2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-29:2021+A1:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-29:2021/A11:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-2:2010/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hoses	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-2:2010/A1:2013	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hoses	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-31:2014	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-31:2014/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-31:2014/A1:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-31:2014/A2:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-32:2003+A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-32:2003+A2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-35:2016+A1:2019+A2:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-3:2016+A1:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-42:2003	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-42:2003/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-42:2003/A12:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-42:2003/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-42:2003/A2:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-44:2002+A1:2008+A2:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-47:2003+A1:2008+A11:2012+A2:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-47:2003/A12:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-48:2003	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-48:2003/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-48:2003/A12:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-48:2003/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-48:2003/A2:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-4:2010/A1:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4:Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-50:2003+A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-58:2005	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-58:2005/A11:2010	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB Ageing test for elastomeric parts Annex CC Requirements to avoid backsiphonag	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-58:2005/A12:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB Ageing test for elastomeric parts Annex CC Requirements to avoid backsiphonag	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-58:2005/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB Ageing test for elastomeric parts Annex CC Requirements to avoid backsiphonag	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-58:2005/A2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB Ageing test for elastomeric parts Annex CC Requirements to avoid backsiphonag	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-59:2003+A1:2006+A2:2009+A11:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-5:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-5:2015/A11:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-5:2015/A1:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-64:2000+A1:2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-65:2003	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-65:2003/A11:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-65:2003/A12:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-65:2003/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-65:2003/A2:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-75:2004/A12:2010	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75:Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-80:2003+A2:2009	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-80:2003/A1:2004	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-85:2003+A1:2008+A11:2018+A2:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-8:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-8:2015/A11:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-8:2015/A12:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-8:2015/A1:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-8:2015/A2:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60335-2-98:2003+A1:2005+A2:2008+A11:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60950-1:2006 +A11:2009+ A1:2 010+A12:2011+A2 :2013	Electrical machinery for households	Information technology equipment - Safety Part1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N
EN 62368-1:2014 +A11:2017	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safety requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiations / Laser (including laser diodes) 10 Radiations / Light emitting diodes (LEDs) 10 Radiations / X-ray 10 Radiations / Effect of UV radiation on materials (Annex C)	Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		10 Radiations / Human exposure to UV radiation (Annex C) Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 IC current limiters Annex G.13.6.2 Test method and compliance criteria Annex G.13.6.2 Abrasion resistance test Annex G.15 Hydrostatic pressure Annex G.15 Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8.2 Protection against internal ignition from external spark sources – Spark Test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in Annex S.3.2 Annex U Mechanical strength of CRTs and protection against the effects of implosion			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-1:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1 : general requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Clause 32.2 Radiation, toxicity and similar hazards Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials Annex U Evaluation for remote communication through public networks	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-1:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1 : general requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Clause 32.2 Radiation, toxicity and similar hazards Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials Annex U Evaluation for remote communication through public networks	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-11:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-11:2022/A11:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-14:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14 : Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-14:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14 : Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-14:2023/A1:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14 : Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-23:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-23:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-23:2023/A1:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-2:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Currentcarrying hose bending resistance test 21.104 – Currentcarrying hose torsion resistance test 21.105 – Lowtemperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-2:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Currentcarrying hose bending resistance test 21.104 – Currentcarrying hose torsion resistance test 21.105 – Lowtemperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-32:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-37:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-37:2024/A11:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-39:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-39:2024/A11:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-39:2024/A1:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-43:2020+A11:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-43: Particular requirements for clothes dryers and towel rails	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-4:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4 : particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-4:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4 : particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-4:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-4:2025/A11:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-58:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-58:2025/A11:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-59:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-59:2025/A11:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-75:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-75:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-75:2023/A1:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-75:2023/A2:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-80:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80 : particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-80:2024/A11:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80 : particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-9:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60335-2-9:2023/A11:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N
EN IEC 62368-1:2020	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of	Single-phase inputvoltage: Less than AC600 VSingle-phase inputcurrent: Less than 20 AFrequency range: (50to 60) HzWithstand voltagerange: (0 ~ 10) kVLeakage current range:(0 ~ 10)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser (including laser diodes) 10 Radiation / Light emitting diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray 10 Radiation / Effect of UV radiation on materials	mAGround continuityvoltage: Less thanAC/DC 12 VGround continuitycurrent: Less thanAC/DC 45 ATemperature:(-40 ~850)°CRelative humidity: Lessthan 98 % R.H.Insulation resistancereference voltage: Lessthan DC 1 000 VInsulation resistancemeasurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		(Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation / Carbon-arc light-exposure test Annex C UV radiation / Xenon-arc light-exposure test Annex C UV radiation /Tensile strength, ISO 527 Annex C UV radiation / Flexural strength, ISO 178 Annex C UV radiation / Charpy impact, ISO 179 Annex C UV radiation / Izod impact, ISO 180 Annex C UV radiation / Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and fittings compatibility test Annex J / Insulated winding			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) / Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants Annex Y.3.3 / Water-sulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray test Annex Y.5.5 / Protection			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		from excessive dust Annex Y.6.2 / Impact test			
EN IEC 62368-1:2020+A11:2020	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser (including laser diodes) 10 Radiation / Light emitting diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray 10 Radiation / Effect of UV radiation on materials (Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation / Carbon-arc light-exposure test Annex C UV radiation / Xenon-arc light-exposure test Annex C UV radiation / Tensile strength, ISO 527 Annex C UV radiation / Flexural strength, ISO 178 Annex C UV radiation / Charpy impact, ISO 179 Annex C UV radiation / Izod impact, ISO 180 Annex C UV radiation / Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and fittings compatibility test Annex J / Insulated winding wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) / Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Annex Y.3.3 / Water-sulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray test Annex Y.5.5 / Protection from excessive dust Annex Y.6.2 / Impact test			
EN IEC 62368-1:2024+A11:2024	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X	Single-phase inputvoltage: Less than AC600 VSingle-phase inputcurrent: Less than 20 AFrequency range: (50to 60) HzWithstand voltagerange: (0 ~ 10) kVLeakage current range:(0 ~ 10) mAGround continuityvoltage: Less thanAC/DC 12 VGround continuitycurrent: Less thanAC/DC 45 ATemperature:(-40 ~850)°CRelative humidity: Lessthan 98 % R.H.Insulation resistancereference voltage: Lessthan DC 1	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser (including laser diodes) 10 Radiation / Light emitting diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray 10 Radiation / Effect of UV radiation on materials (Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation / Carbon-arc light-exposure test Annex C UV radiation / Xenon-arc light-exposure test Annex C UV radiation /Tensile strength, ISO 527	000 VInsulation resistancemeasurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Annex C UV radiation / Flexural strength, ISO 178 Annex C UV radiation / Charpy impact, ISO 179 Annex C UV radiation / Izod impact, ISO 180 Annex C UV radiation / Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and fittings compatibility test Annex J / Insulated winding wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire /			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) / Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants Annex Y.3.3 / Water-sulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray test Annex Y.5.5 / Protection from excessive dust Annex Y.6.2 / Impact test			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60065:2001+ A1:2005+A2:2010	Electrical machinery for households	Audio, Video and similar electronic apparatus - Safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laser radiation 7.2 Softening Temperature 12.3 REMOTE CONTROL devices held in hand 14.2 Capacitor 14.6 Switch 16.1 Flexible cords, not complying with 16.1 etc. 17.7 Cord Torque 18. Mechanical strength of picture tubes and protection againist splashing water ANNEX A Additional requirements for apparatus with protection against splashing water ANNEX H Insulation winding wires for use without interleaved insulation	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 5) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 200)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ Vibration frequency range: (10 ~ 55) Hz Amplitude: Less than 0.35 mm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60065:2014	Electrical machinery for households	Audio, video and similar electronic apparatus - Safety requirements [Exception] 6.1 Ionizing radiation 6.2 Laserradiation 6.3 Light emitting diodes (LEDs) 7.2 Heat resistance of insulating material 12.3 REMOTE CONTROL devices held in hand 14.3 Capacitors and RC-units 14.7 Switch 16 External flexible cords 16.1 Flexible cords, not complying with 16.1 etc.) 17.7 Cord Torque 18. Mechanical strength of picture tubes and protection against the effects of implosion ANNEX AA Additional requirements for apparatus with protection against splashing water ANNEX H Insulated winding wires for use without interleaved insulation	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 200)°C Relative humidity: Less than 98 % R.H. Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2010	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2010 /AMD1:2013	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2010 /AMD2:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Clause 32.2 Radiation, toxicity and similar hazards Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials Annex U Evaluation for remote communication through public networks	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-11:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-11:2008/AMD1:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-11:2008/AMD2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-11:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-11:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11: Particular requirements for tumble dryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-13:2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-13:2009	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-13:2009/A1:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-13:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2006	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2006/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2006/AMD2:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature: (-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2016/AMD1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-14:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14 : Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-15:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15:Particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-15:2012/AMD1:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15:Particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-15:2012/AMD2:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15:Particular requirements for appliances for heating liquids [Exception] 22.103 Durability test of appliance coupler of cordless appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-16:2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-16:2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-16:2002/AMD2:2011	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-16:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-21:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-21:2012/AMD1:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-21:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-23: 2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-23: 2016/AMD1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-29: 2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-29: 2016/AMD1:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-2:2009	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-2:2009/AMD1:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-2:2009/AMD2:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-2:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Currentcarrying hose bending resistance test 21.104 – Currentcarrying hose torsion resistance test 21.105 – Lowtemperature condition resistance test for current-carrying hosest	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-31:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-31:2012/AMD1:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-31:2012/AMD2:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-31:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-32: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-32: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-32: 2002/AMD2:2013	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-32: 2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-32: 2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32: Particular requirements for massage appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-35:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-35: 2012/AMD1:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-35: 2012/AMD2:2020	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-37: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-37:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-37:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-37: 2021/AMD1:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-39: 2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-39: 2012/AMD1:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-39: 2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-39: 2021/AMD1:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2002/AMD1:2004	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2002/AMD2:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2012/AMD1:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-3:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-42: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-42: 2002/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-42: 2002/A2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-42:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-42: 2021/A1:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-43:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-43: Particular requirements for clothes dryers and towel rails	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-43: 2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-43: Particular requirements for clothes dryers and towel rails	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-44: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-44: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-44: 2002/AMD2:2011	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-44: 2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-44: 2021/AMD1:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-47: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-47: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-47: 2002/AMD2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-47:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-47: 2021/AMD1:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-48: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-48: 2002/A1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-48: 2002/A2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-48: 2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-4:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4:Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-4:2008/AMD1:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4:Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-4:2008/AMD2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4:Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-4:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4:Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-4:2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-50: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-50: 2002/AMD1:2007	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-50: 2002/AMD2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-50:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-58: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58: Particular requirements for commercial electric dishwashing machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-58: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58: Particular requirements for commercial electric dishwashing machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-58: 2002/AMD2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-58:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [Exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-59: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-59: 2002/AMD1:2006	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-59: 2002/AMD2:2009	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-59:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-5:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-5:2012/A1:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-64: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-64: 2002/AMD1:2007	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-64: 2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-64: 2021/AMD1:2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-65: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-65: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-65: 2002/AMD2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65:Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-65: 2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-75:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75:Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-75: 2012/AMD1:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75:Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-75: 2012/AMD2:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75:Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-75: 2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines [Exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-80: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-80: 2002/AMD1:2004	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-80: 2002/AMD2:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-80:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-80: 2024	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80: Particular requirements for fans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-85: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-85: 2002/AMD1:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-85: 2002/AMD2:2017	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-85: 2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-8:2012	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-8:2012/AMD1:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-8:2012/AMD2:2018	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-8:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-98: 2002	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-98: 2002/AMD1:2004	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-98: 2002/AMD2:2008	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-98: 2023	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-2-9:2019	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60950-1:2005+A1:2009+A2:2013	Electrical machinery for households	Information technology equipment - Safety Part 1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N
IEC 62368-1:2014	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safety requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiations / Laser (including laser diodes) 10 Radiations / Light emitting diodes (LEDs) 10 Radiations / X-ray 10 Radiations / Effect of UV radiation on materials (Annex C)	Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		10 Radiations / Human exposure to UV radiation (Annex C) Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 IC current limiters Annex G.13.6.2 Test method and compliance criteria Annex G.13.6.2 Abrasion resistance test Annex G.15 Hydrostatic pressure Annex G.15 Tubing and fittings compatibility test Annex J Insulated winding wires for use without interleaved insulation Annex M.8.2 Protection against internal ignition from external spark sources – Spark Test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in Annex S.3.2 Annex U Mechanical strength of CRTs and protection against the effects of implosion			
IEC 62368-1:2018	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements	Single-phase input voltage: Less than AC 600 V Single-phase input	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		[Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser (including laser diodes) 10 Radiation / Light emitting	current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray 10 Radiation / Effect of UV radiation on materials (Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation / Carbon-arc light-exposure test Annex C UV radiation / Xenon-arc light-exposure test Annex C UV radiation /Tensile strength, ISO 527 Annex C UV radiation / Flexural strength, ISO 178 Annex C UV radiation / Charpy impact, ISO 179 Annex C UV radiation / Izod impact, ISO 180 Annex C UV radiation / Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and fittings compatibility test Annex J / Insulated winding wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) / Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants Annex Y.3.3 / Water-sulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray test Annex Y.5.5 / Protection from excessive dust Annex Y.6.2 / Impact test			
IEC 62368-1:2023	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical	Single-phase inputvoltage: Less than AC600 VSingle-phase inputcurrent: Less than 20 AFrequency range: (50to 60) HzWithstand voltagerange: (0 ~ 10) kVLeakage current range:(0 ~ 10) mAGround continuityvoltage: Less thanAC/DC 12 VGround continuitycurrent: Less thanAC/DC 45 ATemperature:(-40 ~850)°CRelative humidity: Lessthan 98 % R.H.Insulation resistancereference voltage: Lessthan DC 1 000 VInsulation resistancemeasurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser (including laser diodes) 10 Radiation / Light emitting diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray 10 Radiation / Effect of UV radiation on materials (Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation / Carbon-arc light-exposure test Annex C UV radiation / Xenon-arc light-exposure test Annex C UV radiation /Tensile strength, ISO 527 Annex C UV radiation / Flexural strength, ISO 178 Annex C UV radiation / Charpy impact, ISO 179 Annex C UV radiation / Izod impact, ISO 180 Annex C UV radiation /			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and fittings compatibility test Annex J / Insulated winding wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) /			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants Annex Y.3.3 / Water-sulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray test Annex Y.5.5 / Protection from excessive dust Annex Y.6.2 / Impact test			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
K60335-2-85:2007	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-85: Particular requirements for fabric steamers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
K 60950-1:2011	Electrical machinery for households	Infortion technology equipment - Safety Part 1:General requirements [exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flamble liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Hun exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA ndrel test	Single phase Input Voltage:less than AC 300 V Input Current:less than 20 A Frequency:(50 ~ 60) Hz Electric Strength:(0 ~ 5) kV Leakage:less than 10 mA Earth Continuity voltage:less than 12 V Earth Continuity current:less than 45 A Temperature:(0 ~ 200) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-1:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 1: General requirements [Exception] Clause 14 Transient overvoltage Clause 19.11.4 Abnormal operation Clause 22.32 Construction Clause 24 Components Annex F Capacitors Annex H Switches Annex J Coated printed circuit boards Annex R Software evaluation Annex T UV-C radiation effect on non-metallic materials	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-11:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-11:Particular requirements for tumble dryers	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-13:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-13: Particular requirements for deep fat fryers, frying pans and similar appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-14:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-14:Particular requirements for kitchen machines [Exception] 25.7 Addition test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-15:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-15:Particular requirements for appliances for heating liquids [exception] 22.103 Durability test of appliance coupler of cordless appliances	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Temperature:(- 40 ~ 200) °C Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Insulation Resistance:less than 4 MΩ Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-16:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-16:Particular requirements for food waste disposers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-21:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-21:Particular requirements for storage water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-23:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-23:Particular requirements for appliances for skin or hair care	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-29:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-29: Particular requirements for battery chargers [Exclusions] 21.101 - Additional Test 21.102 - Additional Test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-2:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-2:Particular requirements for vacuum cleaners and water-suction cleaning appliances [Exception] 21.101 – Energized hose crushing resistance test 21.102 – Energized hose abrasion resistance test 21.103 – Current-carrying hose bending resistance test 21.104 – Current-carrying hose torsion resistance test 21.105 – Low-temperature condition resistance test for current-carrying hosest	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-31:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-32:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-32:Particular requirements for massage appliances	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-35:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-37:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-37: Particular requirements for commercial electric doughnut fryers and deep fat fryers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-39:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-39: Particular requirements for commercial electric multi-purpose cooking pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-3:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-3: Particular requirements for electric irons	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-42:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-43:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-43: Particular requirements for clothes dryers and towel rails	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-44:2021	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-44: Particular requirements for ironers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-47:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-47: Particular requirements for commercial electric boiling pans	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-48:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-48: Particular requirements for commercial electric grillers and toasters	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-4:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-50:2015	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-50: Particular requirements for commercial electric bains-marie	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-58:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-58:Particular requirements for commercial electric dishwashing machines [exception] Annex BB - Ageing test for elastomeric parts Annex CC - Requirements to avoid backsiphonage	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-59:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-59: Particular requirements for insect killers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-5:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-5:Particular requirements for dishwashers [Exception] Annex BB Ageing test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-64:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-64: Particular requirements for commercial electric kitchen machines	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-65:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning appliances [Exception] Clause 32 - Radiation, toxicity and similar hazards	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-75:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-75:Particular requirements for commercial dispensing appliances and vending machines [exception] Annex AA - Aging test for elastomeric parts	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-80:2022	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-80:Particular requirements for fans	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N
KC 60335-2-8:2016	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-8:Particular requirements for shavers, hair clippers and similar appliances [exception] Annex BB Ageing test for elastomeric parts	Input Voltage:less than AC 600 V Input Current:less than 20 A Leakage Current:less than 10 mA Earth Continuity Voltage:less than 8 V Earth Continuity Current:less than 45 A Electric strength Voltage:less than 10 kV Temperature:(- 40 ~ 850) °C Humidity:less than 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-98:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-98: Particular requirements for humidifiers	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 60335-2-9:2025	Electrical machinery for households	Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 ~ 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850) °C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N
KC 62368-1:2025	Electrical machinery for households	Audio/video, information and communication technology equipment – Part 1:Safey requirements [Exception] 5.4.1.10 Thermoplastic parts on which conductive metallic parts are directly	Single phase Input Voltage:less than AC 300 V Input Current:less than 20 A Frequency:(50 ~ 60) Hz Electric Strength:(0 ~ 5) kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		mounted / Vicat test B 50 of ISO 306 5.4.1.4, 9.2.5 Maximum operating temperatures for materials, components and systems / Three phase voltage supply systems 5.4.2, 5.4.3, 5.4.4 Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 5.4.2, 5.4.3, 5.4.4, Annex X Clearances, creepage distance, solid insulation / Test equipment for tracking index per IEC 60112 / Mandrel (figure 25 to 28), metal foil, equipment suitable for electrical strength test loads Stop watch, weight 5.4.1.5.3 Thermal cycling test procedure 5.6.4.1 Determination of the overcurrent protective device and circuit (Annex R) / Source with at least 1500A short circuit 10 Radiation / Laser(including laser diodes) 10 Radiation / Light emitting diodes (LEDs) 10 Radiation / Image Projector 10 Radiation / X-ray	Leakage:less than 10 mA Earth Continuity voltage:less than 12 V Earth Continuity current:less than 45 A Temperature:(0 ~ 200) °C Humidity:less than 98 % R.H.		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		10 Radiation / Effect of UV radiation on materials (Annex C) 10 Radiation / Human exposure to UV radiation (Annex C) Annex C UV radiation/ Carbon-arc lightexposure test Annex C UV radiation/ Xenon-arc lightexposure test Annex C UV radiation/Tensile strength, ISO 527 Annex C UV radiation/ Flexural strength, ISO 178 Annex C UV radiation/ Charpy impact, ISO 179 Annex C UV radiation/ Izod impact, ISO 180 Annex C UV radiation/ Tensile impact, ISO 8256 Annex G.5.3.4 / Test for FIW Annex G.7 Mains supply cords / Test equipment according IEC 60227 Annex G.9 / IC current limiters Annex G.13.6.2 / Test method and compliance criteria Annex G.13.6.2 / Abrasion resistance test Annex G.15 / Hydrostatic pressure Annex G.15 / Tubing and			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		fittings compatibility test Annex J / Insulated winding wires for use without interleaved insulation Annex M.7 / Concentration of hydrogen gas Annex M.8.2 / Protection against internal ignition from external spark sources – Spark Test Annex R / Limited Short-circuit test Annex S Tests for resistance to heat and fire / Distillate fuel oil as described in annex S.3.2 Annex U / Mechanical strength of CRTs and protection against the effects of implosion Annex Y.2 (Annex C) / Ultraviolet light conditioning test Annex Y 3 / Resistance to corrosion, water borne contaminants Annex Y.3.3 / Watersulphur dioxide test Annex Y.4.3 / Tensile strength and elongation tests Annex Y.4.4 / Compression test Annex Y.4.5 / Oil resistance Annex Y.5 / Protection from moisture Annex Y.5.3 / Water spray			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		test Annex Y.5.5 / Protection from excessive dust Annex Y.6.2 / Impact test			
UL 60950-1:2011	Electrical machinery for households	Information technology equipment - Safety Part 1:General requirements [Exception] 2.10.8.4 Abrasion resistance test 3.2.5.1 AC power supply cords 4.2.8 Cathode ray tubes 4.3.12 Flammable liquids 4.3.13.2 Ionizing radiation 4.3.13.3 UV 4.3.13.4 Human exposure to ultraviolet (UV) radiation 4.3.13.5 Laser ANNEX A.3 Hot flaming oil test ANNEX H Ionizing radiation ANNEX AA Mandrel test	Single-phase input voltage: Less than AC 600 V Single-phase input current: Less than 20 A Frequency range: (50 to 60) Hz Withstand voltage range: (0 ~ 10) kV Leakage current range: (0 ~ 10) mA Ground continuity voltage: Less than AC/DC 12 V Ground continuity current: Less than AC/DC 45 A Temperature:(-40 ~ 850)°C Relative humidity: Less than 98 % R.H. Insulation resistance reference voltage: Less than DC 1 000 V Insulation resistance measurement range: 4 000 MΩ	BS	N

03. Electrical Testing

03.008 Wired/wireless communication devices

Test method	Materials Products	Standard designation	Test range	Site	Field testing
1999/519/EC	Wired/wireless communication devices	Council recommendation of 12 july 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)	0 Hz ~ 40 GHz	BS	N
3GPP TS 25.144 V11.2:2012	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; User Equipment(UE) and Mobile Station(MS) over the air performance requirements	700 MHz ~ 6 GHz	SF-3	N
3GPP TS 34.114 V12.2:2016	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; User Equipment(UE)/Mobile Station(MS) Over The Air(OTA) antenna performance; Conformance testing	700 MHz ~ 6 GHz	SF-3	N
3GPP TS 37.544 V16.3:2024	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Universal Terrestrial Radio Access (UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Over The Air (OTA) performance; Conformance testing	700 MHz ~ 6 GHz	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 51 010-1 V13.12.0 Section 12.2	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (Release 13)	30 MHz ~ 4 GHz	BS	N
3GPP TS 51 010-1 V13.13.0 Section 12.2	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (Release 13)	30 MHz ~ 4 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
3GPP TS 51 010-1 V13.14.0 Section 12.2	Wired/wireless communication devices	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (Release 13)	30 MHz ~ 4 GHz	BS	N
ACMA Radio communications 2003	Wired/wireless communication devices	AUSTRALIA Radio communications(Electromagnetic Radiation – Human Exposure) Standard 2003	30 MHz ~ 6 GHz	BS	N
ACMA Radio communications 2014	Wired/wireless communication devices	AUSTRALIA Radio communications(Electromagnetic Radiation – Human Exposure) Standard 2014	30 MHz ~ 6 GHz	BS	N
ACMA Radiocommunications: 2021	Wired/wireless communication devices	AUSTRALIA Radiocommunications Equipment (General) Rules 2021	30 MHz ~ 6 GHz	BS	N
ANSI C63.10:2013	Wired/wireless communication devices	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	9 kHz ~ 243 GHz	BS	N
ANSI C63.10:2020	Wired/wireless communication devices	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	9 kHz ~ 243 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ANSI C63.19:2019	Wired/wireless communication devices	American National Standard Methods of Measurements of Compatability between wireless Communications devices and Hearing Aids	H Field:10 mA/m ~ 2 A/m E Field:2 V/m ~ 1 000 V/m	BS	N
ANSI C63.26:2015	Wired/wireless communication devices	American National Standard for Compliance Testing of Transmitters Use in Licensed Radio Services	9 kHz - 325 GHz	BS	N
ANSI C63.4:2009	Wired/wireless communication devices	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	9 kHz ~ 40 GHz	BS	N
ANSI C63.4:2014	Wired/wireless communication devices	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	9 kHz ~ 40 GHz	BS	N
ANSI/TIA-5050:2018	Wired/wireless communication devices	Telecommunications Communications Products Receive Volume Control Requirements for Wireless (Mobile) Devices	100 Hz ~ 8 kHz	BS	N
ANSI/TIA-603-D:2010	Wired/wireless communication devices	Land Mobile FM or PM – Communications Equipment - Measurement and Performance Standards	9 kHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ANSI/TIA-603-E:2016	Wired/wireless communication devices	Land Mobile FM or PM – Communications Equipment - Measurement and Performance Standards	9 kHz ~ 40 GHz	BS	N
ANSI/USEMCSC C63.10-2020/Cor 1:2023	Wired/wireless communication devices	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	9 kHz ~ 243 GHz	BS	N
ANSI/USEMCSC C63.10a-2024	Wired/wireless communication devices	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	9 kHz ~ 243 GHz	BS	N
ANSI/USEMCSC C63.10-2020/Cor 1-2023 + ANSI/USEMCSC C63.10a-2024 + Errata to ANSI/USEMCSC C63.10a-2024	Wired/wireless communication devices	Errata to American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	9 kHz ~ 243 GHz	BS	N
ARIB STD-T56 3.3:2015	Wired/wireless communication devices	SPECIFIC ABSORPTION RATE (SAR) ESTIMATION FOR CELLULAR PHONE	30 MHz ~ 6 GHz	BS	N
ARPANSA Radiation Protection Standard: 2021	Wired/wireless communication devices	Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz	3 kHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/ACIF S031:2001	Wired/wireless communication devices	Requirements for ISDN Basic Access Interface	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/ACIF S038:2001	Wired/wireless communication devices	Requirements for ISDN Primary Rate Access Interface	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S002:2010	Wired/wireless communication devices	Analogue interworking and non-interference requirements for Customer Equipment for connection to the Public Switched Telephone Network	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S002:2010 Amdt No. 1/2012	Wired/wireless communication devices	Analogue interworking and non-interference requirements for Customer Equipment for connection to the Public Switched Telephone Network	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S003.1:2010	Wired/wireless communication devices	Requirements for Customer Access Equipment for connection to a Telecommunications Network — Part 1: General	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S003.1:2010 Amdt No. 1/2012	Wired/wireless communication devices	Requirements for Customer Access Equipment for connection to a Telecommunications Network — Part 1: General	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S003.2:2010	Wired/wireless communication devices	Requirements for Customer Access Equipment for connection to a Telecommunications Network — Part 2: Analogue and TDM based technologies	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S003.3:2010	Wired/wireless communication devices	Requirements for Customer Access Equipment for connection to a Telecommunications Network — Part 3: Packet and cell based technologies	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N
AS/CA S004:2013	Wired/wireless communication devices	Voice performance requirements for Customer Equipment	SPL:below 100 dB Frequency Range:100 Hz ~ 8 kHz Output Impedance:4 Ω Output level:below 10 W Input Impedance:1 kΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S041.1:2015	Wired/wireless communication devices	Requirements for DSL Customer Equipment for connection to the Public Switched Telephone Network — Part 1: General	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S041.2:2015	Wired/wireless communication devices	Requirements for DSL Customer Equipment for connection to the Public Switched Telephone Network — Part 2: Modems for use in connection with all DSL services	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S041.3:2015	Wired/wireless communication devices	Requirements for DSL Customer Equipment for connection to the Public Switched Telephone Network — Part 3: Filters for use in connection with all xDSL services	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N
AS/CA S042.1:2025	Wired/wireless communication devices	Requirements for connection to an air interface of a Telecommunications Network— Part 1: General	SPL:below 162 dB Frequency Range:100 Hz ~ 8 kHz Output Impedance:4 Ω Output level:below 10 W Input Impedance:1 kΩ	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S043.1:2015	Wired/wireless communication devices	Requirements for Customer Equipment for connection to a metallic local loop interface of a Telecommunications Network — Part 1: General	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S043.2:2016	Wired/wireless communication devices	Requirements for Customer Equipment for connection to a metallic local loop interface of a Telecommunications Network — Part 2: Broadband	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S043.2:2016 Amdt No. 1/2017	Wired/wireless communication devices	Requirements for Customer Equipment for connection to a metallic local loop interface of a Telecommunications Network — Part 2: Broadband	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S043.2:2016 Amdt No. 2/2018	Wired/wireless communication devices	Requirements for Customer Equipment for connection to a metallic local loop interface of a Telecommunications Network — Part 2: Broadband	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
AS/CA S043.3:2015	Wired/wireless communication devices	Requirements for Customer Equipment for connection to a metallic local loop interface of a Telecommunications Network — Part 3: DC, low frequency AC and voiceband	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N
AS/NZS 2772.2:2016	Wired/wireless communication devices	SPECIFIC ABSORPTION RATE (SAR) ESTIMATION FOR CELLULAR PHONE	100 MHz ~ 6 GHz	BS	N
AS/NZS 2772.2:2016 Amd 1:2018	Wired/wireless communication devices	Principles and methods of measurement and computation - 3 kHz to 300 GHz	100 MHz ~ 6 GHz	BS	N
CS-03 Part II Issue 9 Amendment 1:2012	Wired/wireless communication devices	Part II:Requirements for Terminal Equipment Intended for Connection to 1.544 Mbps (DS-1) Digital Interfaces	Digital signal source:1.544 Mbps (DS-1) Termination impedance:100 Ω	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CS-03 Part V Issue 9 Amendment 3:2021	Wired/wireless communication devices	Requirements and Test Methods for Magnetic Output from Handset Telephones for Hearing Aid Coupling and for Receive Volume Control	Frequency range:(200 ~ 4 000) Hz DC resistance:900 Ω Inductance:150 mH Sensitivity:-60 dBV/(A/m)	BS	N
CS-03 Part VI Issue 9 Amendment1:2012	Wired/wireless communication devices	Part VI:Requirements for Integrated Services Digital Network Terminal Equipment	Digital signal source:1.544 Mbps (DS-1) Termination impedance:100 Ω	BS	N
CS-03 Part VII Issue 9 Amendment 4:2012	Wired/wireless communication devices	Part VII:Requirements for Limited-Distance Modem and Digital Subrate Terminal Equipment	Input impedance:1 MΩ Termination impedance:(141.75 ~ 128.25) Ω	BS	N
CS-03 PartI Issue 9, Amendment 5:2016	Wired/wireless communication devices	Part I:Requirements for Terminal Equipment(TE) and Related Access Arrangements Intended for Direct Connection to Analogue Wireline Facilities	Input impedance:600 Ω Frequency range:100 Hz ~ 30 MHz	BS	N
CS-03, Part VIII Issue 9, Amendment 6:2022	Wired/wireless communication devices	Part VIII:Requirements and Test Methods for Digital Subscriber Line (xDSL) Terminal Equipment	Frequency range:200 Hz ~ 30 MHz Balun Termination impedance:100 Ω, 600 Ω	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CTIA 01.01 v6.0.3:2024	Wired/wireless communication devices	Test Scope, Requirements, and Applicability [Exception] A-GPS L5 for LTE, A-GALILEO E1 for LTE, A-GPS L1 for NR FR1 EN-DC, A-GPS L1 for NR FR1, NR FR1 SA 2DL CA, NR FR1 SA 3DL CA, NR FR1 EN-DC with 2 LTE carriers and 1 NR carrier	600 MHz ~ 6 GHz	SF-3	N
CTIA 01.01 v8.0.2:2025	Wired/wireless communication devices	Test-Scope-Requirements-Applicability [제외항목] A-GPS L1, A-GPS L5, A-GALILEO E1, A-GALILEO E5, NR FR1 Red Cap	600 MHz ~ 6 GHz	SF-3	N
CTIA 01.20 v6.0.2:2024	Wired/wireless communication devices	Test Methodology, SISO, Anechoic Chamber	600 MHz ~ 6 GHz	SF-3	N
CTIA 01.20 v8.0.1:2025	Wired/wireless communication devices	Test Methodology, SISO, Anechoic Chamber	600 MHz ~ 6 GHz	SF-3	N
CTIA HAC Test Plan:2003	Wired/wireless communication devices	Test Plan for Hearing Aid Compatibility	H Field:10 mA/m ~ 2 A/m E Field:2 V/m ~ 1 000 V/m	BS	N
CWG Test Plan v6.0.1:2024	Wired/wireless communication devices	Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices [Exception] 802.11ax	600 MHz ~ 6 GHz	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CWG Test Plan v8.0.0:2025	Wired/wireless communication devices	Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices [제외항목] 802.11ax	600 MHz ~ 6 GHz	SF-3	N
EN 50360:2001	Wired/wireless communication devices	Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields	100 MHz ~ 6 GHz	BS	N
EN 50360:2001 +A1:2012	Wired/wireless communication devices	Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields	100 MHz ~ 6 GHz	BS	N
EN 50360:2017	Wired/wireless communication devices	Product standard to demonstrate the compliance of wireless communication devices, with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 300 MHz to 6 GHz:devices used next to the ear	100 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50360:2017+ A1:2023	Wired/wireless communication devices	Product standard to demonstrate the compliance of wireless communication devices, with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 300 MHz to 6 GHz:devices used next to the ear	100 MHz ~ 6 GHz	BS	N
EN 50385:2002	Wired/wireless communication devices	Product standard to demonstrate the compliance of radio basestations and fixed terminal stations for wireless Telecommunication systems with the basic restrictions or the reference levels related to human exposure to radiofrequency electromagnetic fields(110 MHz - 40 GHz)- General Public	110 MHz ~ 40 GHz	BS	N
EN 50385:2017	Wired/wireless communication devices	Product standard to demonstrate the compliance of base station equipment with radiofrequency electromagnetic field exposure limits (110 MHz - 100 GHz), when placed on the market	110 MHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50566:2013	Wired/wireless communication devices	Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz - 6 GHz)	100 MHz ~ 6 GHz	BS	N
EN 50566:2017	Wired/wireless communication devices	Product Standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz:hand-held and body mounted devices in close proximity to the human body	100 MHz ~ 6 GHz	BS	N
EN 50566:2017+ A1:2023	Wired/wireless communication devices	Product Standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz:hand-held and body mounted devices in close proximity to the human body	100 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50566:2017+ A2:2025	Wired/wireless communication devices	Product Standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz:hand-held and body mounted devices in close proximity to the human body	100 MHz ~ 6 GHz	BS	N
EN 50663:2017	Wired/wireless communication devices	Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)	10 MHz ~ 40 GHz	BS	N
EN 62209-1:2006	Wired/wireless communication devices	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 1:Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)	100 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62209-1:2016	Wired/wireless communication devices	Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1:Devices used next to the ear (Frequency range of 300 MHz to 6 GHz)	100 MHz ~ 6 GHz	BS	N
EN 62209-2:2010	Wired/wireless communication devices	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures Part 2:Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)	100 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62209-2:2010 /A1:2019	Wired/wireless communication devices	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures Part 2:Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)	100 MHz ~ 6 GHz	BS	N
EN 62232:2017	Wired/wireless communication devices	DETERMINATION OF RF FIELD STRENGTH, POWER DENSITY AND SAR IN THE VICINITY OF RADIOCOMMUNICATION BASE STATIONS FOR THE PURPOSE OF EVALUATING HUMAN EXPOSURE	100 MHz ~ 6 GHz	BS	N
EN 62311:2008	Wired/wireless communication devices	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)	0Hz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 62311:2020	Wired/wireless communication devices	Assessment of electronic and electrical equipmentrelated to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)	0 Hz ~ 40 GHz	BS	N
EN 62479:2010	Wired/wireless communication devices	Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)	10 MHz ~ 40 GHz	BS	N
EN IEC/IEEE 62209-1528:2021	Wired/wireless communication devices	Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)	100 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC/IEEE 63195-1:2023	Wired/wireless communication devices	Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz) – Part 1: Measurement procedure	6 GHz ~ 110 GHz	BS	N
ETSI EN 300 220-1 V2.3.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 1:Technical characteristics and test methods	25 MHz ~ 6 GHz	BS	N
ETSI EN 300 220-1 V2.4.1:2012	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 1:Technical characteristics and test methods	25 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 220-1 V3.1.1:2017	Wired/wireless communication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 1:Technical characteristics and methods of measurement	25 MHz ~ 6 GHz	BS	N
ETSI EN 300 220-2 V2.3.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD);Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 2:Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive	25 MHz ~ 6 GHz	BS	N
ETSI EN 300 220-2 V2.4.1:2012	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 2:Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive	25 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 220-2 V3.1.1:2017	Wired/wireless communication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2:Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU for non specific radio equipment	25 MHz ~ 6 GHz	BS	N
ETSI EN 300 220-2 V3.2.1:2018	Wired/wireless communication devices	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonised Standard for access to radio spectrum for non specific radio equipment	25 MHz ~ 6 GHz	BS	N
ETSI EN 300 328 V1.7.1:2006	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive	30 MHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 328 V1.8.1:2012	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 300 328 V1.9.1:2015	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 300 328 V2.1.1:2016	Wired/wireless communication devices	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	30 MHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 328 V2.2.2:2019	Wired/wireless communication devices	Wideband transmission systems; Data Transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 300 330 V2.1.1:2017	Wired/wireless communication devices	Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	9 kHz ~ 1 000 MHz	BS	N
ETSI EN 300 330-1 V1.7.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 1:Technical characteristics and test methods	9 kHz ~ 1 000 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 330-1 V1.8.1:2015	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 1:Technical characteristics and test methods	9 kHz ~ 1 000 MHz	BS	N
ETSI EN 300 330-2 V1.5.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 2:Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	9 kHz ~ 1 000 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 330-2 V1.6.1:2015	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 2:Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	9 kHz ~ 1 000 MHz	BS	N
ETSI EN 300 440 V2.1.1:2017	Wired/wireless communication devices	Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	25 MHz ~ 66 GHz	BS	N
ETSI EN 300 440-1 V1.6.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 1:Technical characteristics and test methods	25 MHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 300 440-2 V1.4.1:2010	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2:Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	25 MHz ~ 40 GHz	BS	N
ETSI EN 301 091-1 V2.1.1 2017	Wired/wireless communication devices	Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 1:Ground based vehicular radar	30 MHz ~ 154 GHz	BS	N
ETSI EN 301 406 V2.2.2:2016	Wired/wireless communication devices	Digital Enhanced Cordless Telecommunications (DECT); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU	30 MHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 502 V10.2.1:2012	Wired/wireless communication devices	Global System for Mobile communications (GSM); Harmonized EN for Base Station Equipment covering the essential requirements of article 3.2 of the R&TTE Directive	100 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 502 V12.5.2:2017	Wired/wireless communication devices	Global System for Mobile communications (GSM); Base Station (BS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	100 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 511 V12.5.1:2017	Wired/wireless communication devices	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 511 V9.0.2:2003	Wired/wireless communication devices	Global System for Mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC)	9 kHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 893 V1.6.1:2011	Wired/wireless communication devices	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 26 GHz	BS	N
ETSI EN 301 893 V1.7.1:2012	Wired/wireless communication devices	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 26 GHz	BS	N
ETSI EN 301 893 V1.8.1:2015	Wired/wireless communication devices	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 26 GHz	BS	N
ETSI EN 301 893 V2.1.1:2017	Wired/wireless communication devices	5 GHz RLAN; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	30 MHz ~ 26 GHz	BS	N
ETSI EN 301 893 V2.2.1:2024	Wired/wireless communication devices	5 GHz WAS/RLAN; Harmonised Standard for access to radio spectrum	30 MHz ~ 26 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-1 V11.1.1:2016	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1:Introduction and common requirements	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-1 V13.1.1:2019	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1:Introduction and common requirements	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-1 V15.1.1:2021	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements	30 MHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-1 V15.2.1:2023	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements; Release 15	RSE : 30 MHz ~ 26 GHz	BS	N
ETSI EN 301 908-1 V7.1.1:2015	Wired/wireless communication devices	IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 1:Introduction and common requirements	30 MHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-11 V11.1.2:2017	Wired/wireless communication devices	Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 11:CDMA Direct Spread (UTRA FDD) Repeaters	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-11 V5.2.1:2011	Wired/wireless communication devices	IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 11:CDMA Direct Spread (UTRA FDD) (Repeaters)	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-13 V13.3.1:2024	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) 4.2.13 Receiver Total Radiated Sensitivity (TRS) 4.2.14 Total Radiated Power (TRP)	600 MHz ~ 6 GHz	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-13 V13.3.1:2024	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) [Exception] 4.2.13 Receiver Total Radiated Sensitivity (TRS) 4.2.14 Total Radiated Power (TRP)	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-14 V15.1.1:2021	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS) Release 15	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-15 V11.1.2:2017	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 15:Evolved Universal Terrestrial Radio Access (E-UTRA FDD) Repeaters	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-15 V15.1.1:2020	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 15:Evolved Universal Terrestrial Radio Access (E-UTRA FDD) Repeaters	9 kHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-15 V5.2.1:2011	Wired/wireless communication devices	IMT cellular networks;Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 15:Evolved Universal Terrestrial Radio Access (E-UTRA FDD) (Repeaters)	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-18 V17.1.1:2025	Wired/wireless communication devices	IMT cellular networks;Harmonised Standard for access to radio spectrum; Part 18: NR, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS) Release 17	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-2 V13.1.1:2020	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE) 4.2.14 Receiver Total Radiated Sensitivity (TRS) 4.2.15 Total Radiated Power (TRP)	600 MHz ~ 6 GHz	SF-3	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-2 V13.1.1:2020	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE) [Exception] 4.2.14 Receiver Total Radiated Sensitivity (TRS) 4.2.15 Total Radiated Power (TRP)	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-20 V6.2.1:2013	Wired/wireless communication devices	IMT cellular networks;Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 20:OFDMA TDD WMAN (Mobile WiMAX) TDD Base Stations (BS)	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-20 V6.3.1:2016	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 20:OFDMA TDD WMAN (Mobile WiMAXTM) TDD Base Stations (BS)	9 kHz ~ 26.5 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-22 V5.2.1:2011	Wired/wireless communication devices	IMT cellular networks;Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 22:OFDMA TDD WMAN (Mobile WiMAX) FDD Base Stations (BS)	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-22 V6.1.1:2016	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 22:OFDMA TDD WMAN (Mobile WiMAXTM) FDD Base Stations (BS)	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 301 908-23 V15.1.1:2023	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 23: Active Antenna System (AAS) Base Station (BS); Release 15 [Exception] Clauses 4.3.13, 4.3.14, 4.3.15, 4.3.16, 4.3.18, 4.3.19, 4.3.20, 4.3.21, 4.3.22, 4.3.23, 4.3.25	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-24 V15.1.1:2023	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 24: New Radio (NR) Base Stations (BS) Release 15	9 kHz ~ 60 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 908-3 V11.1.3:2017	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 3:CDMA Direct Spread (UTRA FDD) Base Stations (BS)	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-3 V15.1.1:2024	Wired/wireless communication devices	IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS) Release 15	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 301 908-3 V6.2.1:2013	Wired/wireless communication devices	IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 3:CDMA Direct Spread (UTRA FDD) Base Stations (BS)	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 302 065-1 V2.1.1:2016	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1:Requirements for Generic UWB applications	30 MHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 065-2 V2.1.1:2016	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 2:Requirements for UWB location tracking	30 MHz ~ 40 GHz	BS	N
ETSI EN 302 065-3 V2.1.1:2016	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 3:Requirements for UWB devices for ground based vehicular applications	30 MHz ~ 40 GHz	BS	N
ETSI EN 302 065-4 V1.1.1:2016	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 4:Material Sensing devices using UWB technology below 10,6 GHz	30 MHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 065-5 V1.1.1:2017	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 5:Devices using UWB technology onboard aircraft	30 MHz ~ 40 GHz	BS	N
ETSI EN 302 208 V3.1.1:2016	Wired/wireless communication devices	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU	25 MHz ~ 12.75 GHz	BS	N
ETSI EN 302 208 V3.3.1:2020	Wired/wireless communication devices	Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum	30 MHz ~ 12.75 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 208-1 V1.4.1:2011	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 1:Technical requirements and methods of measurement	25 MHz ~ 12.75 GHz	BS	N
ETSI EN 302 208-2 V1.4.1:2011	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM);Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 2:Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	25 MHz ~ 12.75 GHz	BS	N
ETSI EN 302 264 V2.1.1 2017	Wired/wireless communication devices	Short Range Devices; Transport and Traffic Telematics (TTT); Short Range Radar equipment operating in the 77 GHz to 81 GHz band; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	30 MHz ~ 162 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 288 V2.1.1:2017	Wired/wireless communication devices	Short Range Devices; Transport and Traffic Telematics (TTT); Ultra-wideband radar equipment operating in the 24,25 GHz to 26,65 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 014/53/EU	30 MHz ~ 50 GHz	BS	N
ETSI EN 302 291-1 V1.1.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Close Range Inductive Data Communication equipment operating at 13.56 MHz; Part 1:Technical characteristics and test methods	9 kHz ~ 1 GHz	BS	N
ETSI EN 302 291-2 V1.1.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Close Range Inductive Data Communication equipment operating at 13.56 MHz; Part 2:Harmonized EN under article 3.2 of the R&TTE Directive	9 kHz ~ 1 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 302 502 V1.2.1:2008	Wired/wireless communication devices	Broadband Radio Access Networks (BRAN); 5.8 GHz fixed Broadband data transmitting systems; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 302 502 V2.1.1:2017	Wired/wireless communication devices	Wireless Access Systems (WAS); 5,8 GHz fixed broadband data transmitting systems; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	9 kHz ~ 26.5 GHz	BS	N
ETSI EN 302 567 V2.2.1:2021	Wired/wireless communication devices	Multiple-Gigabit/s radio equipment operating in the 60 GHz band	30 MHz ~ 142 GHz	BS	N
ETSI EN 302 858 V2.1.1:2016	Wired/wireless communication devices	Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 24,05 GHz to 24,25 GHz or 24,05 GHz to 24,50 GHz range; Harmonised Standard covering the essential equirements of article 3.2 of the Directive 2014/53/EU	30 MHz ~ 50 GHz	BS	N
ETSI EN 303 340 V1.2.1:2020	Wired/wireless communication devices	Digital Terrestrial TV Broadcast Receivers; Harmonised Standard for access to radio spectrum	(174 ~ 240) MHz, (470 ~ 854) MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 303 345-1 V1.1.1:2019	Wired/wireless communication devices	Broadcast Sound Receivers; Part 1:Generic requirements and measuring methods	148.5 kHz ~ 240 MHz	BS	N
ETSI EN 303 345-2 V1.2.1:2021	Wired/wireless communication devices	Broadcast Sound Receivers; Part 2:AM broadcast sound service; Harmonised Standard for access to radio spectrum	148.5 kHz ~26.1 MHz	BS	N
ETSI EN 303 345-3 V1.1.1:2021	Wired/wireless communication devices	Broadcast Sound Receivers; Part 3:FM broadcast sound service; Harmonised Standard for access to radio spectrum	87.5 ~ 108 MHz	BS	N
ETSI EN 303 345-4 V1.1.1:2021	Wired/wireless communication devices	Broadcast Sound Receivers; Part 4:DAB broadcast sound service; Harmonised Standard for access to radio spectrum	174 ~ 240 MHz	BS	N
ETSI EN 303 345-5 V1.2.1:2021	Wired/wireless communication devices	Broadcast Sound Receivers; Part 5:DRM broadcast sound service; Harmonised Standard for access to radio spectrum	148.5 kHz ~ 240 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 303 360 V1.1.1:2017	Wired/wireless communication devices	Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Obstacle Detection Radars for Use on Manned Rotorcraft	30 MHz ~ 154 GHz	BS	N
ETSI EN 303 372-2 V1.2.1:2021	Wired/wireless communication devices	Satellite Earth Stations and Systems (SES); Satellite broadcast reception equipment; Part 2: Indoor unit; Harmonised Standard for access to radio spectrum	(950 ~2,150) MHz	BS	N
ETSI EN 303 396 V1.1.1:2016	Wired/wireless communication devices	Short Range Devices; Measurement Techniques for Automotive and Surveillance Radar Equipment	30 MHz ~ 162 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 303 413 V1.1.1:2017	Wired/wireless communication devices	Satellite Earth Stations and Systems (SES); Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 1 164 MHz to 1 300 MHz and 1 559 MHz to 1 610 MHz frequency bands; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	30 MHz ~ 8.3 GHz	BS	N
ETSI EN 303 413 V1.2.1:2021	Wired/wireless communication devices	Satellite Earth Stations and Systems (SES); Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 1 164 MHz to 1 300 MHz and 1 559 MHz to 1 610 MHz frequency bands; Harmonised Standard for access to radio spectrum	30 MHz ~ 8.3 GHz	BS	N
ETSI EN 303 417 V1.1.1:2017	Wired/wireless communication devices	Wireless power transmission systems, using technologies other than radio frequency beam in the 19 - 21 kHz, 59 - 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges	9 kHz - 1 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 303 609 V12.5.1:2016	Wired/wireless communication devices	Global System for Mobile communications (GSM); GSM Repeaters; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU	9 kHz ~ 12.75 GHz	BS	N
ETSI EN 303 687 V1.1.1:2023	Wired/wireless communication devices	6 GHz WAS/RLAN; Harmonised Standard for access to radio spectrum	30 MHz ~ 26 GHz	BS	N
ETSI EN 303 883 V1.1.1:2016	Wired/wireless communication devices	Short Range Devices (SRD) using Ultra Wide Band (UWB); Measurement Techniques	30 MHz ~ 40 GHz	BS	N
ETSI EN 305 550-1 V1.2.1:2014	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range; Part 1: Technical characteristics and test methods	30 MHz ~ 128 GHz	BS	N
ETSI EN 305 550-2 V1.2.1:2014	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive	30 MHz ~ 128 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI ES 203 021-1 V2.1.1:2005	Wired/wireless communication devices	Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 1: General aspects	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI ES 203 021-2 V2.1.2:2006	Wired/wireless communication devices	Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 2: Basic transmission and protection of The network from harm	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI ES 203 021-3 V2.1.2:2006	Wired/wireless communication devices	Part 3:Basic Interworking with the Public Telephone Networks	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N
ETSI ES 203 038 V1.2.1:2013	Wired/wireless communication devices	Speech and multimedia Transmission Quality (STQ); Requirements and tests methods for terminal equipment incorporating a handset when connected to the analogue interface of the PSTN	SPL:below 100 dB Frequency Range:100 Hz ~ 8 kHz Output Impedance:4 Ω Output level:below 10 W Input Impedance:1 kΩ	BS	N
ETSI TBR3 A1:1997	Wired/wireless communication devices	Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN basic access	Load impedance:50 Ω, 400 Ω Frequency range:100 Hz ~ 10 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TBR4 A1:1997	Wired/wireless communication devices	Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN primary rate access	Input impedance:120 Ω Load impedance:120 Ω Frequency range:(51 ~ 3072) Hz	BS	N
ETSI TS 136 141 V15.21.0 (2025-01)	Wired/wireless communication devices	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing (3GPP TS 36.141 version 15.21.0 Release 15) [Exception] Clauses 6.3, 6.3.2, 6.4, 6.5, 7.3, 7.4, 8	9 kHz ~ 26.5 GHz	BS	N
ETSI TS 137 141 V16.21.0 (2024-05)	Wired/wireless communication devices	Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; 5G; NR, E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) conformance testing (3GPP TS 37.141 version 16.21.0 Release 16) [Exception] Clauses 6.3, 6.4, 6.5, 6.6.3, 7.3, 7.8, 8	9 kHz ~ 26.5 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 137 145-1 V16.16.0 (2025-04)	Wired/wireless communication devices	Universal Mobile Telecommunications System (UMTS); LTE; 5G; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: conducted conformance testing (3GPP TS 37.145-1 version 16.16.0 Release 16) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8	9 kHz ~ 26.5 GHz	BS	N
ETSI TS 137 145-2 V16.20.0 (2025-07)	Wired/wireless communication devices	Universal Mobile Telecommunications System (UMTS); LTE; 5G; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 2: radiated conformance testing (3GPP TS 37.145-2 version 16.20.0 Release 16) [Exception] Clauses 6.3, 6.4, 6.5, 6.7, 6.8, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8	9 kHz ~ 26.5 GHz	BS	N
ETSI TS 138 141-1 V16.21.0 (2025-07)	Wired/wireless communication devices	5G; NR; Base Station (BS) conformance testing Part 1: Conducted conformance testing (3GPP TS 38.141-1 version 16.21.0 Release 16) [Exception] Clauses 6.3, 6.4, 6.5, 7.3, 7.8, 8	9 kHz ~ 26.5 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI TS 138 141-2 V16.21.0 (2025-07)	Wired/wireless communication devices	5G; NR; Base Station (BS) conformance testing Part 2: Radiated conformance testing (3GPP TS 38.141-2 version 16.21.0 Release 16) [Exception] Clauses 6.4, 6.5, 6.6, 6.7.2, 7.4, 7.9, 8	30 MHz ~ 60 GHz	BS	N
ETSI TS 145 005 V17.0.0:2022	Wired/wireless communication devices	Digital cellular telecommunications system (Phase 2+) (GSM); GSM/EDGE Radio transmission and reception (3GPP TS 45.005 version 17.0.0 Release 17) [Exception] Clauses 4.1.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 5, 6	100 kHz ~ 12.75 GHz	BS	N
ETSI TS 151 021 V17.0.0:2022	Wired/wireless communication devices	Digital cellular telecommunications system (Phase 2+) (GSM); Base Station System (BSS) equipment specification; Radio aspects (3GPP TS 51.021 version 17.0.0 Release 17) [Exception] Clauses 6.1, 6.2, 6.4, 6.9, 6.10, 6.11, 7.1, 7.2, 7.4, 9	100 kHz ~ 12.75 GHz	BS	N
FCC Part 101:2019	Wired/wireless communication devices	FIXED MICROWAVE SERVICES	9 kHz - 325 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
FCC Part 15:2018 subpart C	Wired/wireless communication devices	Intentional Radiators	9 kHz ~ 243 GHz	BS	N
FCC Part 15:2018 subpart E	Wired/wireless communication devices	Unlicensed National Information Infrastructure Devices	9 kHz ~ 40 GHz	BS	N
FCC Part 15F:2019	Wired/wireless communication devices	ULTRA-WIDEBAND OPERATION	9 kHz - 200 GHz	BS	N
FCC Part 15H:2019	Wired/wireless communication devices	WHITE SPACE DEVICES	9 kHz - 7 GHz	BS	N
FCC Part 2.1046:2018	Wired/wireless communication devices	Measurements required:RF power output	9 kHz ~ 40 GHz	BS	N
FCC Part 2.1049:2018	Wired/wireless communication devices	Measurements required:Occupied bandwidth	9 kHz ~ 40 GHz	BS	N
FCC Part 2.1051:2018	Wired/wireless communication devices	Measurements required:Spurious emissions at antenna terminals	9 kHz ~ 40 GHz	BS	N
FCC Part 2.1053:2018	Wired/wireless communication devices	Measurements required:Field strength of spurious radiation	9 kHz ~ 40 GHz	BS	N
FCC Part 2.1055:2018	Wired/wireless communication devices	Measurements required:Frequency stability	9 kHz ~ 40 GHz	BS	N
FCC Part 2.1091:2018	Wired/wireless communication devices	Radio frequency radiation exposure evaluation; mobile devices	10 MHz ~ 40 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
FCC Part 2.1093:2018	Wired/wireless communication devices	Radio frequency radiation exposure evaluation; portable devices	3 kHz ~ 40 GHz	BS	N
FCC Part 20.19:2006	Wired/wireless communication devices	Hearing aid – compatible mobile handsets [exception] (g) Enforcement	H Field:10 mA/m ~ 2 A/m E Field:2 V/m ~ 1 000 V/m	BS	N
FCC Part 20.21:2019	Wired/wireless communication devices	Signal Boosters	9 kHz - 40 GHz	BS	N
FCC Part 22:2018	Wired/wireless communication devices	Public mobile services	9 kHz ~ 26.5 GHz	BS	N
FCC Part 24:2018	Wired/wireless communication devices	Personal communications services	9 kHz ~ 26.5 GHz	BS	N
FCC Part 25:2019	Wired/wireless communication devices	SATELLITE COMMUNICATIONS	9 kHz - 100 GHz	BS	N
FCC Part 27:2018	Wired/wireless communication devices	Miscellaneous Wireless Communications Services	9 kHz ~ 26.5 GHz	BS	N
FCC Part 30:2019	Wired/wireless communication devices	UPPER MICROWAVE FLEXIBLE USE SERVICE	9 kHz - 325 GHz	BS	N
FCC Part 68:2023	Wired/wireless communication devices	Connection of Terminal Equipment to the Telephone Network	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
FCC Part 74:2019	Wired/wireless communication devices	EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES	9 kHz - 100 GHz	BS	N
FCC Part 90:2018	Wired/wireless communication devices	Private Land Mobile Radio Services	9 kHz ~ 26.5 GHz	BS	N
FCC Part 95:2019	Wired/wireless communication devices	PERSONAL RADIO SERVICES	9 kHz - 325 GHz	BS	N
FCC Part 96:2019	Wired/wireless communication devices	CITIZENS BROADBAND RADIO SERVICE	9 kHz - 40 GHz	BS	N
ICASA TE – 001:2006	Wired/wireless communication devices	Standard Specification for TLTE for Connection to the Public Switched Telephone Network	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62209-2 Ed.1.0b:2010	Wired/wireless communication devices	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures Part 2:Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)	100 MHz ~ 6 GHz	BS	N
IEC PAS 63083:2017	Wired/wireless communication devices	Specific absorption rate (SAR) measurement procedure for long term evolution (LTE) devices	100 MHz ~ 6 GHz	BS	N
IEC/IEEE 63195-1:2022	Wired/wireless communication devices	Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz) – Part 1: Measurement procedure	6 GHz ~ 110 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEEE Std1528:2003	Wired/wireless communication devices	IEEE Recommended Practice for Determining the Peak Special Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices	100 MHz ~ 6 GHz	BS	N
IEEE Std1528:2013	Wired/wireless communication devices	IEEE Recommended Practice for Determining the Peak Special Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices:Measurement Techniques	100 MHz ~ 6 GHz	BS	N
ISO 11904-2:2021	Wired/wireless communication devices	Acoustics – Determination of sound immission from sound sources placed close to ear – Part 2:Technique using a manikin	Frequency range:100 Hz ~ 20 kHz Output voltage:(20 ~ 200) mV	BS	N
ONGO-TS-9001 V1.3.0	Wired/wireless communication devices	OnGo Release 1 Certification Test Plan	3550 MHz ~ 3700 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
PTC 200:2019	Wired/wireless communication devices	Requirements for Connection of Customer Equipment to Analogue Lines	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ Ring generator Output voltage:AC:(0 ~ 150) V Frequency:(15 ~ 100) Hz	BS	N
PTC 220:2019	Wired/wireless communication devices	Requirements for Private Voice Networks connected to the PSTN/ISDN	SPL:below 100 dB Frequency Range:100 Hz ~ 8 kHz Output Impedance:4 Ω Output level:below 10 W Input Impedance:1 kΩ	BS	N
QCVN 110:2023/BTTTT	Wired/wireless communication devices	National technical regulation on Evolved Universal Terrestrial Radio Access (E-UTRA) Base stations (BS) - Radio Access	9 kHz ~ 26.5 GHz	BS	N
QCVN 117:2023/BTTTT	Wired/wireless communication devices	National technical regulation on GSM, W-CDMA, E-UTRA Land Mobile User Equipment - Radio Access	9 kHz ~ 13.45 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 123:2021/BTTTT	Wired/wireless communication devices	National technical regulation on Short Range Device (SRD) – Radio equipment to be used in the 40 GHz to 246 GHz frequency range	47 MHz ~ 300 GHz	BS	N
QCVN 127:2021/BTTTT	Wired/wireless communication devices	National technical regulation on Standalone 5G User Equipment - Radio Access	9 kHz ~ 26 GHz	BS	N
QCVN 128:2021/BTTTT	Wired/wireless communication devices	National technical regulation on 5G Base Station - Radio Access	9 kHz ~ 60 GHz	BS	N
QCVN 129:2021/BTTTT	Wired/wireless communication devices	National technical regulation on Non-Standalone 5G User Equipment - Radio Access	9 kHz ~ 26 GHz	BS	N
QCVN 54:2020/BTTTT	Wired/wireless communication devices	National technical regulation on wideband data transmission equipment operating in the 2,4 GHz band	30 MHz ~ 12.75 GHz	BS	N
QCVN 55:2023/BTTTT	Wired/wireless communication devices	National technical regulation on Short Range Device (SRD)- Radio equipment to be used in the 9 kHz to 25 MHz frequency range	9 kHz ~ 1 000 MHz	BS	N
QCVN 65:2021/BTTTT	Wired/wireless communication devices	National technical regulation on radio access equipment operating in the 5 GHz RLAN band	30 MHz ~ 26 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RSS-102 Issue 5:2015	Wired/wireless communication devices	Radio Frequency Exposure Compliance of Radio communications Apparatus (All Frequency Bands)	100 MHz ~ 40 GHz	BS	N
RSS-119 Issue 12 Amendment 2:2025	Wired/wireless communication devices	Land Mobile and Fixed Equipment Operating in the Frequency Range 27.41-960 MHz	9 kHz ~ 10 GHz	BS	N
RSS-130:2019	Wired/wireless communication devices	Equipment Operating in the Frequency Bands 617-652 MHz, 663-698 MHz, 698-756 MHz and 777-787 MHz	9 kHz - 8 GHz	BS	N
RSS-131 Issue 2:2003	Wired/wireless communication devices	Zone Enhancers for the Land Mobile Service	9 kHz ~ 26.5 GHz	BS	N
RSS-131 Issue 4:2022	Wired/wireless communication devices	Zone Enhancers	9 kHz ~ 40 GHz	BS	N
RSS-132 Issue 4:2023	Wired/wireless communication devices	Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz	9 kHz ~ 26.5 GHz	BS	N
RSS-133 Issue 7:2024	Wired/wireless communication devices	Personal Communications Service Equipment Operating in the Bands 1850-1915 MHz and 1930-1995 MHz	9 kHz ~ 26.5 GHz	BS	N
RSS-139 Issue4 Amendment:2022	Wired/wireless communication devices	Advanced Wireless Services Equipment Operating in the Bands 1710 - 1755 MHz and 2110 - 2155 MHz	9 kHz ~ 26.5 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RSS-140 Issue 1:2018	Wired/wireless communication devices	Equipment Operating in the Public Safety Broadband Frequency Bands 758-768 MHz and 788-798 MHz	9 kHz ~ 8 GHz	BS	N
RSS-170 Issue 4:2022	Wired/wireless communication devices	Mobile Earth Stations and Ancillary Terrestrial Component Equipment Operating in the Mobile-Satellite Service Bands	9 kHz ~ 26.5 GHz	BS	N
RSS-192 Issue 5:2023	Wired/wireless communication devices	Flexible Use Broadband Equipment Operating in the Band 3450-3900 MHz	9 kHz ~ 40 GHz	BS	N
RSS-193 Issue 1:2025	Wired/wireless communication devices	Flexible Use Broadband Equipment Operating in the Band 27.5-28.35 GHz	9 kHz - 100 GHz	BS	N
RSS-195 Issue 2:2014	Wired/wireless communication devices	Wireless Communication Service (WCS) Equipment Operating in the Bands 2305-2320 MHz and 2345-2360 MHz	9 kHz ~ 26.5 GHz	BS	N
RSS-198 Issue 1:2023	Wired/wireless communication devices	Flexible Use Broadband Equipment Operating in the Band 3900-3980 MHz	9 kHz ~ 40 GHz	BS	N
RSS-199 Issue 4:2023	Wired/wireless communication devices	Broadband Radio Service (BRS) Equipment Operating in the Band 2500-2690 MHz	9 kHz ~ 40 GHz	BS	N
RSS-210 Issue 11:2024	Wired/wireless communication devices	Licence-Exempt Radio Apparatus: Category I Equipment	9 kHz ~ 325 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RSS-216 Issue 3:2024	Wired/wireless communication devices	Wireless Power Transfer Devices	9 kHz ~ 200 GHz	BS	N
RSS-220:2018	Wired/wireless communication devices	Devices Using Ultra-Wideband (UWB) Technology	9 kHz - 200 GHz	BS	N
RSS-222 Issue 4:2024	Wired/wireless communication devices	White Space Devices (WSDs)	9 kHz - 7 GHz	BS	N
RSS-247 Issue 4:2025	Wired/wireless communication devices	Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands	9 kHz ~ 40 GHz	BS	N
RSS-248 Issue 3:2024	Wired/wireless communication devices	Radio Local Area Network (RLAN) Devices Operating in the 5925-7125 MHz Band	9 kHz ~ 40 GHz	BS	N
RSS-251:2018	Wired/wireless communication devices	Vehicular Radar and Airport Fixed or Mobile Radar in the 76-81 GHz Frequency Band	9 kHz - 325 GHz	BS	N
RSS-252 Issue 2:2023	Wired/wireless communication devices	Intelligent Transportation Systems' (ITS) On-Board Units (OBUs) in the 5895-5925 MHz Band	9 kHz ~ 40 GHz	BS	N
RSS-GEN Issue 5:2018	Wired/wireless communication devices	General Requirements for Compliance of Radio Apparatus	F	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RSS-Gen Issue 5, Amendment 2:2021	Wired/wireless communication devices	General Requirements for Compliance of Radio Apparatus	9 kHz ~ 200 GHz	BS	N
SKMM MTSFB TCT001:2013	Wired/wireless communication devices	SPECIFICATION FOR TERMINAL EQUIPMENT CONNECTING TO THE PUBLIC SWITCHED TELEPHONE NETWORK (PSTN)	Loop feed channel output Voltage:DC:below 110 V Current limit:below 200 mA Voltage resolution:30 mV Voltage accuracy:200 mV Polarity switching time:under 0.2 ms Series resistance:below 300 kΩ	BS	N
TIA-968-B-1:2012	Wired/wireless communication devices	Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network-Addendum 1	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N
TIA-968-B-2:2015	Wired/wireless communication devices	Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network-Addendum 2	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
TIA-968-B-3:2016	Wired/wireless communication devices	Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network-Addendum 3	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N
TIA-968-B:2009	Wired/wireless communication devices	Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N
WINNF-TS-0122 V1.0.2	Wired/wireless communication devices	Test and Certification for Citizens Broadband Radio Service (CBRS); Conformance and Performance Test Technical Specification; CBSD/DP as Unit Under Test (UUT)	3 550 MHz ~ 3 700 MHz	BS	N
MSIT Notification No.2018-1(01.19.2018.)	Wired/wireless communication devices	Notification for Installation requirements of Intergrated Reception System	Frequency range:(5.75 ~ 2 150) MHz Input Impedance:75 Ω	BS	N
MSIT Notification No.2019-4(01.16.2019.)	Wired/wireless communication devices	Technical Requirements for the Human Protection against Electromagnetic Waves	30 MHz ~ 6 GHz	BS	N
MSIT Notification No.2023-18(06.20.2023.)	Wired/wireless communication devices	Technical requirements for unlicensed radio equipment	9 kHz ~ 40 GHz	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
MSIT Notification No.2022-63 (11.09.2022.)	Wired/wireless communication devices	Technical Requirements for CATV Equipment	Frequency range:(5.75 ~ 1 002) MHz Input Impedance:75 Ω	BS	N
MSIT Act No.86(01.04.2022.)	Wired/wireless communication devices	Rules on Radio equipment	9 kHz ~ 40 GHz	BS	N
RRA Notification No.2018-18(12.07.2018.)	Wired/wireless communication devices	Technical Requirements for Measurements of Specific Absorption Rate (SAR)	100 MHz ~ 6 GHz	BS	N
RRA Notification No.2022-15(07.29.2022.)	Wired/wireless communication devices	Technical Requirements for the Radio Equipment of Telecommunications Service	9 kHz ~ 26.5 GHz	BS	N
RRA Notice No.2022-16(09.05.2022.)	Wired/wireless communication devices	Technical Requirements for Telecommunications Terminal Equipment	Input impedance:600 Ω Frequency range:100 Hz ~ 10 MHz	BS	N
RRA Notification No.2022-19 (10.17.2022.)	Wired/wireless communication devices	Technical Requirements for Broadcasting and Communication Equipment of Internet multimedia broadcasting business	Input impedance:above 1 MΩ Termination resistance:(95 ~ 105) Ω	BS	N
RRA Notification No.2023-12(06.30.2023.)	Wired/wireless communication devices	Conformity Assessment Procedure for Electromagnetic Field Strength and Specific Absortion Rate (SAR)	30 MHz ~ 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
RRA Notification No.2023-5(04.03.2023.)	Wired/wireless communication devices	Technical Requirements for the Radio equipment for Simplified Service, Space station, Earth station, Sensors for Detecting and other equipments	9 kHz ~ 26.5 GHz	BS	N

03. Electrical Testing

03.010 Medical devices

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-10:2008+A1:2015	Medical devices	Medical electrical equipment - Part 1-10:General requirements for basic safety and essential performance - Collateral Standard:Requirements for the development of physiologic closed-loop controllers	-	BS	N
EN 60601-1-10:2008+A2:2021	Medical devices	Medical electrical equipment - Part 1-10: General requirements for basic safety and essential performance - Collateral Standard: Requirements for the development of physiologic closed-loop controllers	-	BS	N
EN 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11:General requirements for basic safety and essential performance - Collateral Standard:Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-11:2015+A1:2021	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c./ 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN 60601-1-6:2010+A1:2015	Medical devices	Medical electrical equipment – Part 1-6:General requirements for basic safety and essential performance – Collateral standard:Usability	-	BS	N
EN 60601-1-6:2010+A2:2021	Medical devices	Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard:Usability	-	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-8:2007+A1:2013	Medical devices	Medical electrical equipment - Part 1-8:General requirements for basic safety and essential performance - Collateral Standard:General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems	Sound pressure level:Max. 140 dB	BS	N
EN 60601-1-8:2007+A2:2021	Medical devices	Medical electrical equipment - Part 1-8: General requirements for basic safety and essential performance - Collateral Standard:General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems	Sound pressure level:Max. 140 dB	BS	N
EN 60601-1:2006+A1:2013	Medical devices	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance [exception] 8.8.4.2 Resistance to environmental stress - Requirements of insulating material for rubber 8.9.1.7 Material groups classification 9.5.2 Cathode ray tubes	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		10.3 Microwave radiation 11.2.2 ME EQUIPMENT and ME SYSTEMS used in conjunction with OXYGEN RICH ENVIRONMENTS 11.2.3 SINGLE FAULT CONDITIONS related to OXYGEN RICH ENVIRONMENTS in conjunction with ME EQUIPMENT and ME SYSTEMS 11.6.7 Sterilization of ME EQUIPMENT and ME SYSTEMS 15.4.2.1 f) Application 15.4.3.4 Lithium batteries Annex G Protection against HAZARDS of ignition of flammable anaesthetic mixtures Annex L Insulated winding wires for use without interleaved insulation			
EN 60601-1:2006 +A2:2021	Medical devices	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance [exception] 8.8.4.2 Resistance to environmental stress - Requirements of insulating material for rubber 8.9.1.7 Material groups	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage: Max. 10 kV a.c./ 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		classification 9.5.2 Cathode ray tubes 10.3 Microwave radiation ME EQUIPMENT and ME SYSTEMS used in conjunction with OXYGEN RICH ENVIRONMENTS SINGLE FAULT CONDITIONS related to OXYGEN RICH ENVIRONMENTS in conjunction with ME EQUIPMENT and ME SYSTEMS 11.6.7 Sterilization of ME EQUIPMENT and ME SYSTEMS 15.4.2.1 f) Application 15.4.3.4 Lithium batteries Annex G Protection against HAZARDS of ignition of flammable anaesthetic mixtures Annex L Insulated winding wires for use without interleaved insulation	°C Humidity:Max. 98 % R.H.		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-10:2015+A1:2016	Medical devices	Medical electrical equipment – Part 2-10:Particular requirements for the basic safety and essential performance of nerve and muscle stimulators	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN 60601-2-18:2015	Medical devices	Medical electrical equipment - Part 2-18:Particular requirements for the basic safety and essential performance of endoscopic equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-22:2013	Medical devices	Medical electrical equipment - Part 2-22:Particular requirements for basic safety and essential performance of surgical, cosmetic, therapeutic and diagnostic laser equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H Laser power : Max. 120 W / 100 J Laser wavelength: Max. 11 μm	BS	N
EN 60601-2-25:2015	Medical devices	Medical electrical equipment - Part 2-25:Particular requirements for the basic safety and essential performance of electrocardiographs	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-27:2014	Medical devices	Medical electrical equipment - Part 2-27:Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN 60601-2-47:2015	Medical devices	Medical electrical equipment - Part 2-47:Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-49:2015	Medical devices	Medical electrical equipment - Part 2-49:Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN 60601-2-57:2011	Medical devices	Medical electrical equipment - Part 2-57:Particular requirements for the basic safety and essential performance of non-laser light source equipment intended for therapeutic, diagnostic, monitoring and cosmetic/aesthetic use	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-5:2015	Medical devices	Medical electrical equipment - Part 2-5: Particular requirements for the basic safety and essential performance of ultrasonic physiotherapy equipment	Voltage: Max 300 Va.c. Current: Max. 30 A Frequency: (50 ~ 60) Hz Applied voltage : Max 10 kVa.c. / 10 kVd.c. Applied temperature: (-40 ~ 150) °C Measuring temperature: Max. 200 °C Humidity: Max. 98 % R.H.	BS	N
EN 60601-2-62:2015	Medical devices	Medical electrical equipment - Part 2-62: Particular requirements for the basic safety and essential performance of high intensity therapeutic ultrasound (HITU) equipment	Voltage: Max 300 Va.c. Current: Max. 30 A Frequency: (50 ~ 60) Hz Applied voltage : Max 10 kVa.c. / 10 kVd.c. Applied temperature: (-40 ~ 150) °C Measuring temperature: Max. 200 °C Humidity: Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-2-66:2015	Medical devices	Medical electrical equipment - Part 2-66:Particular requirements for the basic safety and essential performance of hearing instruments and hearing instrument systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN 80601-2-60:2015	Medical devices	Medical electrical equipment - Part 2-60:Particular requirements for the basic safety and essential performance of dental equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60601-2-22:2020	Medical devices	Medical electrical equipment - Part 2-22:Particular requirements for basic safety and essential performance of surgical, cosmetic, therapeutic and diagnostic laser equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H Laser power : Max. 120 W / 100 J Laser wavelength: Max. 11 μm	BS	N
EN IEC 60601-2-2:2018	Medical devices	Medical electrical equipment - Part 2-2:Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories [exception] 201.15.101.5 NE thermal performance	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 60601-2-66:2020	Medical devices	Medical electrical equipment - Part 2-66: Particular requirements for the basic safety and essential performance of hearing aids and hearing aid systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
EN IEC 80601-2-60:2020	Medical devices	Medical electrical equipment - Part 2-60:Particular requirements for the basic safety and essential performance of dental equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-10:2007+A1:2013	Medical devices	Medical electrical equipment - Part 1-10:General requirements for basic safety and essential performance - Collateral Standard:Requirements for the development of physiologic closed-loop controllers	-	BS	N
IEC 60601-1-10:2007+A2:2020	Medical devices	Medical electrical equipment - Part 1-10: General requirements for basic safety and essential performance - Collateral Standard: Requirements for the development of physiologic closed-loop controllers	-	BS	N
IEC 60601-1-11:2015	Medical devices	Medical electrical equipment - Part 1-11:General requirements for basic safety and essential performance - Collateral Standard:Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-11:2015+A1:2020	Medical devices	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage: Max. 10 kV a.c./ 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-1-6:2010+A1:2013	Medical devices	Medical electrical equipment – Part 1-6:General requirements for basic safety and essential performance – Collateral standard:Usability	-	BS	N
IEC 60601-1-6:2010+A2:2020	Medical devices	Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard:Usability	-	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-8:2006+A1:2012	Medical devices	Medical electrical equipment - Part 1-8:General requirements for basic safety and essential performance - Collateral Standard:General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems	Sound pressure level:Max. 140 dB	BS	N
IEC 60601-1-8:2006+A2:2020	Medical devices	Medical electrical equipment - Part 1-8: General requirements for basic safety and essential performance - Collateral Standard:General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems	Sound pressure level:Max. 140 dB	BS	N
IEC 60601-1:2005+A1:2012	Medical devices	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance [exception] 8.8.4.2 Resistance to environmental stress - Requirements of insulating material for rubber 8.9.1.7 Material groups classification 9.5.2 Cathode ray tubes	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		10.3 Microwave radiation 11.2.2 ME EQUIPMENT and ME SYSTEMS used in conjunction with OXYGEN RICH ENVIRONMENTS 11.2.3 SINGLE FAULT CONDITIONS related to OXYGEN RICH ENVIRONMENTS in conjunction with ME EQUIPMENT and ME SYSTEMS 11.6.7 Sterilization of ME EQUIPMENT and ME SYSTEMS 15.4.2.1 f) Application 15.4.3.4 Lithium batteries Annex G Protection against HAZARDS of ignition of flammable anaesthetic mixtures Annex L Insulated winding wires for use without interleaved insulation			
IEC 60601-1:2005 +A2:2020	Medical devices	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance [exception] 8.8.4.2 Resistance to environmental stress - Requirements of insulating material for rubber 8.9.1.7 Material groups	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage: Max. 10 kV a.c./ 10 kV d.c. Applied temperature: (-40 ~ 150) °C Measuring temperature: Max. 200 °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		classification 9.5.2 Cathode ray tubes 10.3 Microwave radiation ME EQUIPMENT and ME SYSTEMS used in conjunction with OXYGEN RICH ENVIRONMENTS SINGLE FAULT CONDITIONS related to OXYGEN RICH ENVIRONMENTS in conjunction with ME EQUIPMENT and ME SYSTEMS 11.6.7 Sterilization of ME EQUIPMENT and ME SYSTEMS 15.4.2.1 f) Application 15.4.3.4 Lithium batteries Annex G Protection against HAZARDS of ignition of flammable anaesthetic mixtures Annex L Insulated winding wires for use without interleaved insulation	Humidity:Max. 98 % R.H.		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-10:2012+A1:2016	Medical devices	Medical electrical equipment – Part 2-10:Particular requirements for the basic safety and essential performance of nerve and muscle stimulators	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-2-10:2012+AMD1:2016+AMD2:2023	Medical devices	Medical electrical equipment - Part 2-10: Particular requirments for the basic safety and essential performance of nerve and muscle stimulators	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-18:2009	Medical devices	Medical electrical equipment - Part 2-18:Particular requirements for the basic safety and essential performance of endoscopic equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-2-22:2007+A1:2012	Medical devices	Medical electrical equipment - Part 2-22:Particular requirements for basic safety and essential performance of surgical, cosmetic, therapeutic and diagnostic laser equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H Laser power : Max. 120 W / 100 J Laser wavelength: Max. 11 μm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-22:2019	Medical devices	Medical electrical equipment - Part 2-22:Particular requirements for basic safety and essential performance of surgical, cosmetic, therapeutic and diagnostic laser equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H Laser power : Max. 120 W / 100 J Laser wavelength: Max. 11 μm	BS	N
IEC 60601-2-25:2011	Medical devices	Medical electrical equipment - Part 2-25:Particular requirements for the basic safety and essential performance of electrocardiographs	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-27:2011	Medical devices	Medical electrical equipment - Part 2-27:Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-2-2:2017	Medical devices	Medical electrical equipment - Part 2-2:Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories [exception] 201.15.101.5 NE thermal performance	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-47:2012	Medical devices	Medical electrical equipment - Part 2-47:Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-2-49:2011	Medical devices	Medical electrical equipment - Part 2-49:Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-57:2011	Medical devices	Medical electrical equipment - Part 2-57:Particular requirements for the basic safety and essential performance of non-laser light source equipment intended for therapeutic, diagnostic, monitoring and cosmetic/aesthetic use	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 60601-2-5:2009	Medical devices	Medical electrical equipment - Part 2-5: Particular requirements for the basic safety and essential performance of ultrasonic physiotherapy equipment	Voltage: Max 300 Va.c. Current: Max. 30 A Frequency: (50 ~ 60) Hz Applied voltage : Max 10 kVa.c. / 10 kVd.c. Applied temperature: (-40 ~ 150) °C Measuring temperature: Max. 200 °C Humidity: Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-62:2013	Medical devices	Medical electrical equipment - Part 2-62: Particular requirements for the basic safety and essential performance of high intensity therapeutic ultrasound (HITU) equipment	Voltage: Max 300 Va.c. Current: Max. 30 A Frequency: (50 ~ 60) Hz Applied voltage : Max 10 kVa.c. / 10 kVd.c. Applied temperature: (-40 ~ 150) °C Measuring temperature: Max. 200 °C Humidity: Max. 98 % R.H.	BS	N
IEC 60601-2-66:2015	Medical devices	Medical electrical equipment - Part 2-66:Particular requirements for the basic safety and essential performance of hearing instruments and hearing instrument systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-66:2019	Medical devices	Medical electrical equipment - Part 2-66: Particular requirements for the basic safety and essential performance of hearing aids and hearing aid systems	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N
IEC 80601-2-49:2018	Medical devices	Medical electrical equipment - Part 2-49:Particular requirements for the basic safety and essential performance of multifunction patient monitors	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-49:2018+AMD1:2024	Medical devices	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifuction patient monitors	Voltage : Max. 300 Va.c. Current : Max. 30 A Frequency : (50 ~ 60) Hz Applied voltage : Max. 10 kVa.c. / 10 kVd.c. Applied temperature : (-40 ~ 150) °C Temperature : Max. 200 °C Humidity : Max. 98 %R.H.	BS	N
IEC 80601-2-60:2012	Medical devices	Medical electrical equipment - Part 2-60:Particular requirements for the basic safety and essential performance of dental equipment	Voltage:Max. 300 Va.c. Current:Max. 30 A Frequency:(50 ~ 60) Hz Applied voltage:Max. 10 kV a.c. / 10 kV d.c. Applied temperature:(-40 ~ 150) °C Measuring temperature:Max. 200 °C Humidity:Max. 98 % R.H.	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-60:2019	Medical devices	Medical electrical equipment - Part 2-60: Particular requirements for the basic safety and essential performance of dental equipment	Voltage : Max. 300 Va.c. Current : Max. 30 A Frequency : (50 ~ 60) Hz Applied voltage : Max. 10 kVa.c. / 10 kVd.c. Applied temperature : (-40 ~ 150) °C Temperature : Max. 200 °C Humidity : Max. 98 %R.H.	BS	N

03. Electrical Testing

03.011 EMC (Electromagnetic Compatibility)

Test method	Materials Products	Standard designation	Test range	Site	Field testing
47 CFR PART 15 Subpart B:2022	Electrical machinery for households, Electrical machinery for Industries	Unintentional Radiators	RE:9 kHz 40 GHz, CE:9 kHz 30 MHz	BS	N
ANSI C63.25.1-2018	Electrical machinery for households, Electrical machinery for Industries	American National Standard Validation Methods for Radiated Emission Test Sites, 1 GHz to 18 GHz	1 GHz ~ 18 GHz	BS	Y
ANSI C63.4:2014	Electrical machinery for households, Electrical machinery for Industries	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in Range of 9 kHz 40 GHz	9 kHz 40 GHz	BS	Y
ANSI C63.4a:2017	Electrical machinery for households, Electrical machinery for Industries	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in Range of 9 kHz 40 GHz Amendment 1: Test Site Validation	9 kHz 40 GHz	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ANSI/USEMCSC C63.25.2:2024	Electrical machinery for households, Electrical machinery for Industries	American National Standard for Validation Methods for Radiated Emission Test Sites, 30 MHz to 1 GHz	30 MHz ~ 1 GHz	BS	Y
AS/NZS CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment -Emission Requirements	RE:30 MHz ~ 6 GHz, CE:150 kHz ~ 30 MHz Differential voltage:30 MHz ~ 2 150 MHz	BS	N
AS/NZS CISPR 32:2015 Amd 1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment -Emission Requirements	RE:30 MHz ~ 6 GHz, CE:150 kHz ~ 30 MHz Differential voltage:30 MHz ~ 2 150 MHz	BS	N
CAN/CSA-CISPR 32:17	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment -Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
CAN/CSA-CISPR 32:17(R2022)/A1:24	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment -Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
CISPR 11:2015+AMD1:2016+AMD2:2019	Electrical machinery for industries, Medical devices	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement [exception] 8 Special provisions for test site measurements	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 11:2024	Electrical machinery for industries, Medical devices	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement [Exception] 8 Special provisions for test site measurements	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N
CISPR 13:2009+AMD1:2015 CSV	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurement	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
CISPR 14-1:2016	Electrical machinery for households	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N
CISPR 14-1:2020	Electrical machinery for households	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 6 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 14-2:2015	Electrical machinery for households	Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2:Immunity – Product family standard	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 230 MHz V-DIP:(0 100) %	BS	N
CISPR 14-2:2020	Electrical machinery for households	Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2:Immunity – Product family standard	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 230 MHz V-DIP:(0 100) %	BS	N
CISPR 15:2018	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [exception] 4.2 Insertion loss	RE:9 kHz 1 GHz CE:9 kHz 30 MHz	BS	N
CISPR 15:2018+AMD1:2024	lighting equipment	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [Exception] 4.2 Insertion loss	RE:9 kHz 6 GHz CE:9 kHz 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 16-1-4:2019	Electrical machinery for households, Electrical machinery for Industries	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4:Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements	RE:9 kHz 18 GHz	BS	Y
CISPR 16-1-4:2019+AMD1:2020	Electrical machinery for households, Electrical machinery for Industries	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements	RE : 9 kHz 18 GHz	BS	Y
CISPR 16-1-4:2019+AMD1:2020+AMD2:2023	Electrical machinery for households, Electrical machinery for Industries	Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements	RE : 9 kHz 18 GHz	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 25:2021	Wired/wireless communication devices	Vehicle, boats and internal combustion engines – Radio disturbances characteristics – Limits and methods of measurement for the protection of on-board receivers. [exception] 5.4 Test setup of vehicle in charging mode 5.5 Example of limits for vehicle radiated disturbances Annex A, B, C, D, E, F, H	RE: 150 kHz ~ 2.5 GHz CE(Voltage method): 150 kHz ~ 108 MHz CE(Current method): 150 kHz ~ 245 MHz	SF-2	N
CISPR 25:2021	Wired/wireless communication devices	Vehicles, boats and internal combustion engines – Radio distrubance characteristics – Limits and methods of measurement for the protection of on-board receivers.	RE:150 kHz ~ 2.5 GHz CE(VOLTAGE METHOD):150 kHz ~ 108 MHz CE(CURRENT METHOD):150 kHz ~ 245 MHz	BS	Y
CISPR 32:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
CISPR 32:2015+AMD1:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
CISPR 35:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment – Immunity requirements [exception] Table 2 – Immunity requirements for analogue/digital data ports: 2.2 Broadband impulse noise disturbances repetitive 2.3 Broadband impulse noise disturbances, isolated	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6.0 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
CSA CISPR 11 : 19	Electrical machinery for industries, Medical devices	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ECE Regulation No.10 Revision 6:2019	Wired/wireless communication devices	Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility. Annex 7 - Method of measurement of radiated broadband electromagnetic emissions from electrical/electronic sub-assemblies (ESAs) Annex 8 - Method of measurement of radiated narrowband electromagnetic emissions from electrical/electronic sub-assemblies Annex 9 – Method(s) of testing for immunity of electrical/electronic sub-assemblies to electromagnetic radiation [exception] 1.2.1(b) TEM cell 1.2.1(d) Stripline 1.2.1(e) 800 mm stripline	RE:30 MHz 1 GHz ALSE:80 MHz 2 GHz BCI:20 MHz 400 MHz TI: - 600 V ~ 200 V TE:12 V, 24 V System	BS	N
EN 50121-3-2:2016+A1:2019	Electrical machinery for Industries	Railway applications - Electromagnetic compatibility Part3-2:Rolling stock - Apparatus [exception] [Table 1] Emission 1.2 AC Power outlet port for public use	RE : 30 MHz ~ 6 GHz CE : 150 kHz~ 30 MHz CS : 150 kHz ~ 80 MHz EFT : ±2 kV SURGE : ±1 kV, ±2 kV RS : 80 MHz ~ 6 GHz ESD:±8 kV(Air) ±4 kV(Contact)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 50121-4:2016 +A1:2019	Electrical machinery for Industries	Railway applications-Electro magnetic compatibility Part4:Emission and immunity of the signalling and telecommunications apparatus	RE :30 MHz ~ 6 GHz CE :150 kHz ~ 30 MHz DCE : 150 kHz ~ 30 MHz ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F: 300 A/m	BS	N
EN 50130-4:2011 +A1:2014	Electrical machinery for Industries	Alarm systems - Part 4 : electromagnetic compatibility - Product family standard : immunity requirements for components of fire, intruder, hold up, CCTV, acess control and social alarm systems	ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz 2.7 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 100 MHz V-DIP:(0 100) %	BS	N
EN 50155:2017	Electrical machinery for Industries	Railway applications - Rolling stock - Electronic equipment 13.4.8 Electromagnetic compatibility test	RE : 30 MHz ~ 6 GHz CE : 150 kHz ~ 30 MHz CS : 150 kHz ~ 80 MHz EFT : ±2 kV SURGE : ±1 kV, ±2 kV RS : 80 MHz ~ 6 GHz ESD:±8 kV(Air) ±4 kV(Contact)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55011:2016 +A11:2020	Electrical machinery for households, Electrical machinery for Industries	Industrial, scientific and medical equipment — Radio-frequency disturbance characteristics — Limits and methods of measurement	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N
EN 55011:2016 +A2:2021	Electrical machinery for households, Electrical machinery for Industries	Industrial, scientific and medical equipment — Radio-frequency disturbance characteristics — Limits and methods of measurement	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N
EN 55013 : 2013+A1:2016	Electrical machinery for households	Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurement	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
EN 55014-1:2017	Electrical machinery for households	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N
EN 55014-1:2017 +A11:2020	Electrical machinery for households	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55014-2:2015	Electrical machinery for households	Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2:Immunity	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 230 MHz V-DIP:(0 100) %	BS	N
EN 55015:2019	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [exception] 4.2 Insertion loss	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz	BS	N
EN 55024:2010	Wired/wireless communication devices	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
EN 55032:2015	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
EN 55032:2015+ A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 55032:2015+ A1:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage:30 MHz 2 150 MHz	BS	N
EN 55035:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment – Immunity Requirements [exception] Table 2 – Immunity requirements for analogue/digital data ports: 2.2 Broadband impulse noise disturbances repetitive 2.3 Broadband impulse noise disturbances, isolated	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6.0 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
EN 55035:2017+ A11:2020	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment – Immunity Requirements [exception] Table 2 – Immunity requirements for analogue/digital data ports: 2.2 Broadband impulse noise disturbances repetitive 2.3 Broadband impulse noise disturbances, isolated	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6.0 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-2: 2015	Medical devices	Medical electrical equipment –Part 1-2:General requirementsfor basic safety and essential performance – Collateral Standard:Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V	BS	N
EN 60601-1-2:2007	Medical devices	Medical electrical equipment - Part 1-2:General requirements for basic safety and essential performance – Collateral Standard:Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz ~ 2.5 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:3 A/m V-DIP:(0 ~ 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 60601-1-2:2015+A1:2021	Medical devices	Medical electrical equipment –Part 1-2:General requirementsfor basic safety and essential performance – Collateral Standard:Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V PMF:10 kHz ~ 13.56 MHz	BS	N
EN 60601-2-24:2015	Medical devices	Medical electrical equipment – Part 2-24:Particular requirements for the basic safety and essential performance of infusion pumps and controllers <Accept Only> 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-3-3:2013	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection	below 16 A	BS	N
EN 61000-3-3:2013+A1:2019	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection	below 16 A	BS	N
EN 61000-3-3:2013+AMD2:2021	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection	below 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-11:2004 +A1:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 4-11:Testing and measurement techniques — Voltage dips, short interruptions and voltage variations immunity tests	V-DIP:(0 100) %	BS	N
EN 61000-4-2:2009	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC)- Part 4-2:Testing and measurement techniques - Electrostatic discharge immunity test	below ±30 kV	BS	N
EN 61000-4-39 : 2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-39: Testing and measurement techniques – Radiated fields in close proximity – Immunity test	PMF: 10 kHz ~ 13.56 MHz	BS	N
EN 61000-4-3:2006 +A1:2008 +A2:2010	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-3:Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test	RS:80 MHz 6 GHz	BS	Y
EN 61000-4-4:2012	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 4-4:Testing and measurement techniques — Electrical fast transient/burst immunity test	EFT: below ±4 kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61000-4-5:2014	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 4-5:Testing and measurement techniques– Electrostatic discharge immunity test	SURGE: below ±6 kV	BS	N
EN 61000-4-5:2014+A1:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 4-5:Testing and measurement techniques– Electrostatic discharge immunity test	SURGE: below ±6 kV	BS	N
EN 61000-4-6:2014	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-6:Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz 230 MHz	BS	N
EN 61000-4-8:2010	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) Part 4-8:Testing and measurement techniques — Power frequency magnetic field immunity test	M/F: below 100 A/m	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 61204-3:2000	Electrical machinery for households	Low voltage power supplies, d.c. output - Part 3:Electromagnetic compatibility (EMC)	RE:30 MHz 1 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
EN 62040-2:2018	Electrical machinery for households	Uninterruptible power systems (UPS) - Part 2:Electromagnetic compatibility (EMC) requirements [exception] Immunity to Low-frequency signals IEC 61000-2-2	RE:30 MHz 1 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤ 30 A/m	BS	N
EN IEC 55014-1:2021	Electrical machinery for households	Electromagnetic compatibility –Requirements for household appliances, electric tools and similar apparatus Part 1: Emission	RE:9 kHz 6 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N
EN IEC 55014-2:2021	Electrical machinery for households	Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2:Immunity – Product family standard	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 230 MHz V-DIP:(0 ~ 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 55015:2019+A11:2020	Lighting devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [exception] 4.2 Insertion loss	RE:9 kHz ~ 1 GHz, CE:9 kHz ~ 30 MHz	BS	N
EN IEC 61000-3-2:2019	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
EN IEC 61000-3-2:2019+A1:2021	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
EN IEC 61000-3-2:2019+A1:2021+A2:2024	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
EN IEC 61000-4-11:2020	Electrical machinery for households, Electrical machinery for Industries	Testing and measurement techniques — Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-4-3:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-3:Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	RS:80 MHz 6 GHz	BS	Y
EN IEC 61000-4-6:2023	Household electrical appliances, Industrial electrical appliances	Electromagnetic compatibility(EMC) - Part 4-6:Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz ~ 230 MHz	BS	N
EN IEC 61000-6-1:2019	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 6-1:Generic standards - Immunity for residential, commercial and light-industrial environments	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
EN IEC 61000-6-2:2019	Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 6-2:Generic standards - Immunity for industrial environments	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61000-6-3:2021	Electrical machinery for households	Electromagnetic compatibility (EMC) —Part 6-3: Generic standards — Emission standard for equipment in residential environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N
EN IEC 61000-6-4:2019	Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 6-4:Generic standards — Emission standard for industrial environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N
EN IEC 61326-1:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements [exception] IEC 61000-3-11:2017 IEC 61000-3-12:2011	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
EN IEC 61326-2-1:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61326-2-2:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2:Particular requirements - Test configurations, operational conditions and performance criteria for portable testing, measuring and monitoring equipment used in low-voltage distribution systems	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
EN IEC 61326-2-3:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN IEC 61326-2-4:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-4: Particular requirements - Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
EN IEC 61326-2-5:2021	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-5: Particular requirements - Test configurations, operational conditions and performance criteria for field devices with field bus interfaces according to IEC 61784-1	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
EN IEC 61547:2023	Lighting devices	Equipment for general lighting purposes – EMC immunity requirements	ESD:±8 kV(Air) , ±4 kV(Contact) RS:80 MHz ~ 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz M/F:3 A/m V-DIP:(0 ~ 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-1 V2.2.3:2019	Wired/wireless communication devices	Electro Magnetic Compatibility (EMC) standard for radio equipment and services Part1:Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V 12 V, 24 V SYSTEM(ISO 7637-2)	BS	N
ETSI EN 301 489-17 V3.2.4:2020	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17:Specific conditions for Broadband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % 12 V, 24 V SYSTEM(ISO 7637-2)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-17 V3.3.1:2024	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband and Wideband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % 12 V, 24 V SYSTEM(ISO 7637-2)	BS	N
ETSI EN 301 489-19 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 19:Specific conditions for Receive Only Mobile Earth Stations(ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band(ROGNSS) providing positioning, navigation, and timing data; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-19 V2.2.1 (2022-09)	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNSS) providing positioning, navigation, and timing data; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-2 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 2:Specific conditions for radio paging equipment; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-20 V2.2.1 (2021-11)	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS); Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-27 V2.2.1:2019	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 27:Specific conditions for Ultra Low Power Active Medical Implants (ULP-AMI) and related peripheral devices (ULP-AMI-P) operating in the 402 MHz to 405 MHz bands	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-3 V2.3.2 (2023-01)	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-33 V2.2.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 33:Specific conditions for Ultra-Wide Band (UWB) communications devices; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-34 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 34:Specific conditions for External Power Supply (EPS) for mobile phones; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-4 V3.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4:Specific conditions for fixed radio links and ancillary equipment; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-5 V2.2.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 5:Specific conditions for Private land Mobile Radio(PMR) and ancillary equipment(speech and non-speech) and Terrestrial Trunked Radio(TETRA); Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-5 V2.3.1:2025	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 5: Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech) and Terrestrial Trunked Radio (TETRA); Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-50 V2.3.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50:Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-50 V2.4.1:2025	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-51 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 51:Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05GHz to 24,5 GHz, 76 GHz to 77 GHz and77 GHz to 81 GHz; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-52 V1.2.1:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication User Equipment (UE) radio and ancillary equipment; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-52 V1.3.1:2024	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication User Equipment (UE) radio and ancillary equipment; Harmonised Standard for ElectroMagnetic Compatibility	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-6 V2.2.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part6:Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ETSI EN 301 489-7 V1.3.1:2005	Wired/wireless communication devices	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 7:Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.7 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ETSI EN 301 489-9 V2.1.1:2019	Wired/wireless communication devices	Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 9:Specific conditions for wireless microphones, similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU	RE:30 MHz 6 GHz CE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
ICES-003 Issue 7:2020	Electrical machinery for households, Electrical machinery for Industries	Information Technology Equipment (including Digital Apparatus)	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Disturbance Voltage:9 kHz 2.15 GHz	BS	N
IEC 60601-1-2:2007	Medical devices	Medical electrical equipment – Part 1-2:General requirements for basic safety and essential performance – Collateral standard:Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz ~ 2.5 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:3 A/m V-DIP:(0 ~ 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-1-2:2014	Medical devices	Medical electrical equipment – Part 1-2:General requirements for basic safety and essential performance – Collateral Standard:Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V	BS	N
IEC 60601-1-2:2014+AMD1:2020 CSV	Medical devices	Medical electrical equipment –Part 1-2:General requirementsfor basic safety and essential performance – Collateral Standard:Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-10:2012+AMD1:2016+AMD2:2023	Medical devices	Medical electrical equipment – Part 2-10: Particular requirements for the basic safety and essential performance of nerve and muscle stimulators 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-18:2009	Medical devices	Medical electrical equipment – Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-22:2019	Medical devices	Medical electrical equipment – Part 2-22: Particular requirements for basic safety and essential performance of surgical, cosmetic, therapeutic and diagnostic laser equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT AND ME SYSTEMS	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-23:2011	Medical devices	Medical electrical equipment – Part 2-23: Particular requirements for the basic safety and essential performance of transcutaneous partial pressure monitoring equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-24:2012	Medical devices	Medical electrical equipment – Part 2-24:Particular requirements for the basic safety and essential performance of infusion pumps and controllers <Accept Only> 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V	BS	N
IEC 60601-2-25:2011	Medical devices	Medical electrical equipment – Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-27:2011	Medical devices	Medical electrical equipment – Part 2-27: Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-2:2017+AMD1:2023	Medical devices	Medical electrical equipment – Part 2-2: Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-34:2024	Medical devices	Medical electrical equipment – Part 2-34: Particular requirements for the basic safety and essential performance of invasive blood pressure monitoring equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-35:2020+AMD1:2023	Medical devices	Medical electrical equipment – Part 2-35: Particular requirements for the basic safety and essential performance of heating devices using blankets, pads or mattresses and intended for heating in medical use 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-36:2014	Medical devices	Medical electrical equipment – Part 2-36: Particular requirements for the basic safety and essential performance of equipment for extracorporeally induced lithotripsy 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-37:2024	Medical devices	Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-40:2016	Medical devices	Medical electrical equipment – Part 2-40: Particular requirements for the basic safety and essential performance of electromyographs and evoked response equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-43:2010+AMD1:2017+AMD2:2019	Medical devices	Medical electrical equipment – Part 2-43: Particular requirements for the basic safety and essential performance of X-ray equipment for interventional procedures 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-44:2009+AMD1:2012+AMD2:2016	Medical devices	Medical electrical equipment – Part 2-44: Particular requirements for the basic safety and essential performance of X-ray equipment for computed tomography 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-45:2011+AMD1:2015+AMD2:2022	Medical devices	Medical electrical equipment – Part 2-45: Particular requirements for the basic safety and essential performance of mammographic X-ray equipment and mammographic stereotactic devices 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-47:2012	Medical devices	Medical electrical equipment – Part 2-47: Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-4:2010+AMD1:2018	Medical devices	Medical electrical equipment – Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-50:2020+AMD1:2023	Medical devices	Medical electrical equipment – Part 2-50: Particular requirements for the basic safety and essential performance of infant phototherapy equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-52:2009+AMD1:2015	Medical devices	Medical electrical equipment – Part 2-52: Particular requirements for the basic safety and essential performance of medical beds 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-54:2022	Medical devices	Medical electrical equipment – Part 2-54: Particular requirements for the basic safety and essential performance of X-ray equipment for radiography and radioscopy 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests 202.101 Immunity testing of ESSENTIAL PERFORMANCE	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-57:2023	Medical devices	Medical electrical equipment – Part 2-57: Particular requirements for the basic safety and essential performance of non-laser light source equipment intended for therapeutic, diagnostic, monitoring, cosmetic and aesthetic use 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-5:2009	Medical devices	Medical electrical equipment – Part 2-5: Particular requirements for the basic safety and essential performance of ultrasonic physiotherapy equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-62:2013	Medical devices	Medical electrical equipment – Part 2-62: Particular requirements for the basic safety and essential performance of high intensity therapeutic ultrasound (HITU) equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-63:2012+AMD1:2017+AMD2:2021	Medical devices	Medical electrical equipment – Part 2-63: Particular requirements for the basic safety and essential performance of dental extra-oral X-ray equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-65:2012+AMD1:2017+AMD2:2021	Medical devices	Medical electrical equipment – Part 2-65: Particular requirements for the basic safety and essential performance of dental intra-oral X-ray equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic compatibility – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60601-2-66:2019	Medical devices	Medical electrical equipment – Part 2-66: Particular requirements for the basic safety and essential performance of hearing aids and hearing aid systems 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS [Exception] Hearing aid additional testing for immunity to digital wireless interference	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 60601-2-83:2019+AMD1:2022	Medical devices	Medical electrical equipment – Part 2-83: Particular requirements for the basic safety and essential performance of home light therapy equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 61000-3-2:2005+AMD1:2008+AMD2:2009	Electrical machinery for households Electrical machinery for Industrial	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-3-2:2018+AMD1:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
IEC 61000-3-2:2018+AMD1:2020+AMD2:2024	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
IEC 61000-3-3:2013+AMD1:2017+AMD2:2021	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection	below 16 A	BS	N
IEC 61000-4-11:2004+AMD1:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-11:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	V-DIP:(0 100) %	BS	N
IEC 61000-4-2:2008	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-2:Testing and measurement techniques - Electrostatic discharge immunity test	below ±30 kV	BS	N
IEC 61000-4-39 : 2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-39: Testing and measurement techniques – Radiated fields in close proximity – Immunity test	PMF: 10 kHz ~ 13.56 MHz	BS	N
IEC 61000-4-3:2006+AMD1+AMD2:2010	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	RS:80 MHz 6 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-3:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-3:Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	RS:80 MHz 6 GHz	BS	Y
IEC 61000-4-4:2012	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-4:Testing and measurement techniques - Electrical fast transient/burst immunity test	EFT: below ±4 kV	BS	N
IEC 61000-4-5:2014+AMD1:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test	SURGE: below ±6 kV	BS	N
IEC 61000-4-6:2013	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-6:Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz 230 MHz	BS	N
IEC 61000-4-6:2023	Household electrical appliances, Industrial electrical appliances	Electromagnetic compatibility(EMC) - Part 4-6:Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz ~ 230 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-4-8:2009	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-8:Testing and measurement techniques-Power frequency magnetic field immunity test	M/F: below 100 A/m	BS	N
IEC 61000-6-1:2016	Electrical machinery for households	Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity standard for residential, commercial and light-industrial environments	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N
IEC 61000-6-2:2016	Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity standard for industrial environments	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
IEC 61000-6-3:2020	Electrical machinery for households	Electromagnetic compatibility (EMC)–Part 6-3:Generic standards – Emission standard for equipment in residential environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61000-6-4:2018	Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 6-4:Generic standards — Emission standard for industrial environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N
IEC 61326-1:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use – EMC requirements Part 1:General requirements [exception] IEC 61000-3-11:2017 IEC 61000-3-12:2011	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
IEC 61326-2-1:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use — EMC requirements Part 2-1:Particular requirements —Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications (IEC 61326-2-1:2012)	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61326-2-2:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use — EMC requirements Part 2-2:Particular requirements — Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low – voltage distribution systems	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
IEC 61326-2-3:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use — EMC requirements Part 2-3:Particular requirements —Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61326-2-4:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use — EMC requirements Part 2-4:Particular requirements — Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC61557-8 and for equipment for insulation fault location according to IEC 61557-9	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
IEC 61326-2-5:2020	Electrical machinery for Industries	Electrical equipment for measurement, control and laboratory use — EMC requirements Part 2-5:Particular requirements —Test configurations, operational conditions and performance criteria for devices with field bus interfaces according to IEC61784-1	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:≤30 A/m V-DIP:(0 100) %	BS	N
IEC 61547:2020	Lighting devices	Equipment for general lighting purposes – EMC immunity requirements	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 62040-2:2016	Electrical machinery for households	Uninterruptible power systems (UPS) - Part 2:Electromagnetic compatibility (EMC) requirements [exception] Immunity to Low-frequency signals IEC 61000-2-2	E:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m	BS	N
IEC 62236-3-2:2018	Electrical machinery for Industries	Electromagnetic compatibility - Part3-2: Rolling stock – Apparatus [exception] [Table 1] Emission	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz CS: 150 kHz ~ 80 MHz EFT: ±2 kV Surge: ±1 kV, ±2 kV RS: 80 MHz ~ 6 GHz ESD: ±6 kV(Contact discharge), ±8 kV(Air discharge)	BS	N
IEC 62236-4:2018	Electrical machinery for Industries	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus	RE: 30 MHz ~ 6 GHz CE: 150 kHz ~ 30 MHz DCE : 150 kHz ~ 30 MHz ESD: ±6 kV(Contact discharge), ±8 kV(Air discharge) RS: 80 MHz ~ 6 GHz Magnetic field: ≤300 A/m CS: 150 kHz ~ 80 MHz EFT: ±2 kV SURGE: ±2 Kv	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-26:2019	Medical devices	Medical electrical equipment – Part 2-26: Particular requirements for the basic safety and essential performance of electroencephalographs 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 80601-2-30:2018	Medical devices	Medical electrical equipment – Part 2-30: Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-49:2018+AMD1:2024	Medical devices	Medical electrical equipment – Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitors 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 80601-2-60:2019	Medical devices	Medical electrical equipment – Part 2-60: Particular requirements for the basic safety and essential performance of dental equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 80601-2-77:2019	Medical devices	Medical electrical equipment – Part 2-77: Particular requirements for the BASIC SAFETY and essential performance of ROBOTICALLY ASSISTED SURGICAL EQUIPMENT 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEC 80601-2-78:2019+AMD1:2024	Medical devices	Medical electrical equipment – Part 2-78: Particular requirements for basic safety and essential performance of medical robots for rehabilitation, assessment, compensation or alleviation 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
IEEE Std 299:2006	Electrical machinery for households, Electrical machinery for Industries	IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures	Measurement frequency:9 kHz ~ 18 GHz	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 10605:2008	Wired/wireless communication devices	Road vehicles — Test methods for electrical disturbances from electrostatic discharge	ESD: below ±25 kV(Air) below ±25 kV(Contact)	SF-2	N
ISO 10605:2023	Wired/wireless communication devices	Road vehicles — Test methods for electrical disturbances from electrostatic discharge	ESD: below ±25 kV(Air), below ±25 kV(Contact)	BS	N
ISO 11452-2:2019	Wired/wireless communication devices	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 2:Absorber-lined shielded enclosure	80 MHz ~ 18 GHz, ≤ 200 V/m	BS	N
ISO 11452-2:2019	Wired/wireless communication devices	Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 2:Absorber-lined shielded enclosure	20 MHz ~ 6 GHz	SF-2	N
ISO 11452-4:2020	Wired/wireless communication devices	Road Vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 4:Harness excitation methods [exception] 6.2 TWC Test Method	100 kHz ~ 400 MHz	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 11452-4:2020	Wired/wireless communication devices	Road Vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy – Part 4:Harness excitation methods [exception] 6.2 TWC Test Method	100 kHz ~ 400 MHz	BS	N
ISO 11452-8:2015	Wired/wireless communication devices	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 8:Immunity to magnetic fields	DC, 15 Hz 150 kHz	BS	N
ISO 11452-8:2015	Wired/wireless communication devices	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 8:Immunity to magnetic fields	DC 15 Hz 150 kHz	SF-2	N
ISO 11452-9:2021	Wired/wireless communication devices	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy Part 9:Portable transmitters	26 MHz 5 850 MHz	BS	N
ISO 11452-9:2021	Wired/wireless communication devices	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy Part 9:Portable transmitters	26 MHz 5 850 MHz	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 16750-2:2012	Wired/wireless communication devices	Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part2:Electrical loads	Power voltage: 0 V ~ 230 V	BS	N
ISO 16750-2:2012	Wired/wireless communication devices	Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part2:Electrical loads	Power voltage: 0 V ~ 230 V	SF-2	N
ISO 7637-2:2011	Wired/wireless communication devices	Road vehicles — Electrical disturbances from conduction and coupling — Part 2:Electrical transient conduction along supply lines only	TI : - 600 V ~ 200 V	SF-2	N
ISO 7637-2:2011	Wired/wireless communication devices	Road vehicles — Electrical disturbances from conduction and coupling — Part 2:Electrical transient conduction along supply lines only	TI : - 600 V ~ 200 V	BS	N
ISO 7637-3:2016	Wired/wireless communication devices	Road vehicles — Electrical disturbances from conduction and coupling — Part 3:Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	TI signal lines: - 150 V ~ 150 V	SF-2	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 7637-3:2016	Wired/wireless communication devices	Road vehicles—Electrical disturbances from conduction and coupling —Part 3:Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines.	TI signal lines:- 150 V ~ 150 V,	BS	N
ISO 80601-2-56: 2017+AMD1:2018	Medical devices	Medical electrical equipment - Part 2-56 Particular requirements for basic safety and essential performance of clinical thermometers for boby temperature measurement 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 80601-2-61:2017	Medical devices	Medical electrical equipment - Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment 201.17 Electromagnetic compatibility of ME EQUIPMENT and ME SYSTEMS 202 Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI : -600 ~ 200V PMF:10 kHz ~ 13.56 MHz	BS	N
KS C 9040-2:2017	Electrical machinery for Industries	Uninterruptible power systems (UPS) - Part 2:Electromagnetic compatibility (EMC) requirements	RE:30 MHz 1 GHz, CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m	BS	N
KS C 9547:2020	Lighting devices	Equipment for general lighting purposes – EMC immunity requirements	ESD:±8 kV(Air), ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-3-2:2023	Household electrical appliances, Industrial electrical appliances	Electromagnetic compatibility (EMC) - Part 3-2:Limit for harmonics current emissions (equipment input current up to and including 16 A per phase)	below 16 A	BS	N
KS C 9610-3-3:2023	Household electrical appliances, Industrial electrical appliances	Electromagnetic compatibility (EMC) - Part 3-3:Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase	below 16 A	BS	N
KS C 9610-4-11:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-11:Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests [exception] above 16 A equipment	V-DIP:(0 100) %	BS	N
KS C 9610-4-2:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-2:Testing and measurement techniques - Electrostatic discharge immunity test	ESD: below ±30 kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-4-3:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 4-3:Testing and measurement techniques - Radiated, radio—frequency, electromagnetic field	RS:80 MHz ~ 6 GHz	BS	Y
KS C 9610-4-4:2020	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-4:Testing and measurement techniques - Electrical fast transient/burst immunity test	EFT: below ±4 kV	BS	N
KS C 9610-4-5:2023	Household electrical appliances, Industrial electrical appliances	Electromagnetic compatibility (EMC) – Part 4-5:Testing and measurement techniques – Surge immunity test	SURGE: below ±6 kV	BS	N
KS C 9610-4-6:2020	Electrical machinery for households, Electrical machinery for Industries	Test method of Immunity to conducted disturbances, induced by radiofrequency fields	CS:150 kHz 230 MHz,	BS	N
KS C 9610-4-8:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-8:Testing and measurement techniques- Power frequency magnetic field immunity test	MF: below100 A/m	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9610-6-1:2019	Electrical machinery for households	Electromagnetic compatibility(EMC) - Part 6-1:Generic standards - Immunity for residential, commercial and light-industrial environments	ESD:±8 kV(Air), ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N
KS C 9610-6-2:2019	Electrical machinery for Industries	Electromagnetic compatibility (EMC) - Part 6-2:Generic standards - Immunity for industrial environments	ESD:±8 kV(Air), ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
KS C 9610-6-3:2023	Electrical machinery for households	Electromagnetic compatibility (EMC)–Part 6-3:Generic standards – Emission standard for residential,commercial and light-industrial environments	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz DCE:150 kHz30 MHz	BS	N
KS C 9610-6-4:2022	Electrical machinery for Industries	Electromagnetic compatibility (EMC) — Part 6-4:Generic standards — Emission standard for industrial environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9811:2019	Electrical machinery for industries, Medical devices	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement [exception] 7.6.10 Power converter for solar power generation (Above16A equipment and 3 phase connection equipment)	RE:9 kHz ~ 18 GHz CE:9 kHz 30 MHz	BS	N
KS C 9814-1:2022	Electrical machinery for households	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 6 GHz CE:9 kHz30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N
KS C 9814-2:2022	Electrical machinery for households	Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus — Part 2:Immunity – Product family standard	ESD:±30 kV(Air) ±25 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 230 MHz V-DIP:(0 ~ 100) %	BS	N
KS C 9815:2023	Wired/wireless communication devices	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [exception] 4.2 Insertion loss	RE:9 kHz ~ 1 000 MHz CE:9 kHz ~ 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9816-1-4:2020	Electrical machinery for households, Electrical machinery for Industries	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4:Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements	RE:30 MHz 18 GHz	BS	Y
KS C 9832:2023	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz ~ 6 GHz, CE:150 kHz ~ 30 MHz Disturbance Voltage:30MHz ~ 2 150 MHz	BS	N
KS C 9832:2024	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment — Emission requirements	RE:30 MHz ~ 6 GHz, CE:150 kHz ~ 30 MHz Disturbance Voltage:30MHz ~ 2 150 MHz	BS	N
KS C 9835:2019	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Immunity Requirements	ESD:±8 kV(Air), ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±4 kV CS:150 kHz 80 MHz MF:60 Hz, 1 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 9990:2017	Wired/wireless communication devices	Electromagnetic compatibility of automobiles and internal combustion engines [exception] 6.5 Radiated emissions from components/modules. TEM cell method 6.6 Radiated emissions from components/module. Strip line method	Transitional conduction resistance voltage on the power line: - 600 V ~ 200 V RE:30 MHz ~ 1 GHz CE:0.15 MHz ~ 30 MHz Harmonic Current Emission: below 16 A Voltage Fluctuation and Flicker: below 16 A EFT:±2 kV RS:20 MHz 2 000 MHz SURGE:±2 kV	BS	N
KS C 9995:2021	Wired/wireless communication devices	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51:Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05 GHz to 24,5 GHz, 76 GHz to 77 GHz and 77 GHz to 81 GHz;	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air), ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI : - 600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60601-1-2:2014	Medical devices	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance – Collateral standard:Electromagnetic compatibility - Requirements and tests	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.5 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % MF:3 A/m	BS	N
KS C IEC 60601-1-2:2020	Medical electrical equipment	Medical electrical equipment –Part 1-2:General requirementsfor basic safety and essential performance – Collateral Standard:Electromagnetic disturbances – Requirements and tests	RE:30 MHz ~ 18 GHz CE:9 kHz ~ 30 MHz Harmonics:16 A 이하 Flicker:16 A 이하 ESD:±15 kV(Air) ±8 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:30 A/m V-DIP:(0 ~ 100) % TI:-600 V ~ 200 V PMF:10 kHz ~ 13.56 MHz	BS	N
KS C IEC 60947-1:2017	Industrial electrical appliances	Low-voltage switchgear and control gear -Part 1:General rules	RE:30 MHz 1 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.7 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % MF:30 A/m	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60947-2:2022	Industrial electrical appliances	Low-voltage switchgear and controlgear – Part 2: Circuit-breakers	RE:30 MHz ~ 1 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±4 kV SURGE:±4 kV CS:150 kHz ~ 80 MHz V-DIP:(0~100) % MF:30 A/m	BS	N
KS C IEC 60947-4-1:2022	Industrial electrical appliances	Low-voltage switchgear and controlgear – Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters	RE:30 MHz 1 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.7 GHz EFT:±4 kV SURGE:±4 kV CS:150 kHz 80 MHz V-DIP:(0 100) % MF:30 A/m	BS	N
KS C IEC 62236-3-2:2018	Electrical machinery for Industries	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus	CE:150 kHz ~ 30 MHz RE:30 MHz 6 GHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz, EFT:±2 kV CS:150 kHz 80 MHz SURGE:±4 kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 62236-4:2018	Electrical machinery for Industries	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz MF:100 A/m Impulse MF:300 A/m	BS	N
KS X 3124:2020	Wired/wireless communication devices	Common EMC test methods for radio equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V 12 V, 24 V SYSTEM (ISO 7637-2)	BS	N
KS X 3124:2024	Wired/wireless communication devices	Common EMC test methods for radio equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V 12 V, 24 V SYSTEM (ISO 7637-2)	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3125:2020	Wired/wireless communication devices	EMC test methods for specific low power radio equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3125:2024	Wired/wireless communication devices	EMC test methods for specific low power radio equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3126:2020	Wired/wireless communication devices	EMC test methods for specific low power radio equipment for wireless data communication systems	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3126:2024	Wired/wireless communication devices	EMC test methods for specific low power radio equipment for wireless data communication systems	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3127:2014	Wired/wireless communication devices	EMC test methods for Simple Radio Station Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3127:2024	Wired/wireless communication devices	EMC test methods for Simple Radio Station Equipment and TETRA	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3128:2014	Wired/wireless communication devices	EMC Test Methods for Digital Cordless Phone	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3128:2024	Wired/wireless communication devices	EMC Test Methods for Digital Cordless Phone	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3129:2020	Wired/wireless communication devices	EMC Test Methods for Cellular Communication Mobile and Ancillary Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3130:2014	Wired/wireless communication devices	EMC Test Methods for Specific Low Power Radio Equipment for Transmission of Audio and Sound Signal	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3130:2024	Wired/wireless communication devices	EMC Test Methods for Specific Low Power Radio Equipment for Transmission of Audio and Sound Signal	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3131:2014	Wired/wireless communication devices	EMC Test Methods for Citizens' Band(CB) Radio Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3131:2024	Wired/wireless communication devices	EMC Test Methods for Citizens' Band(CB) Radio Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3132:2014	Wired/wireless communication devices	EMC Test Methods for Trunked Radio System(TRS) Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3134:2014	Wired/wireless communication devices	EMC Test Methods for Implantable Radio Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz 2.5 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3134:2024	Wired/wireless communication devices	EMC Test Methods for Implantable Radio Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±6 kV(Contact) RS:80 MHz 6 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3135:2020	Wired/wireless communication devices	EMC test methods for cellular communication base station, repeater and ancillary equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3136:2014	Wired/wireless communication devices	EMC Test Methods for Amateur Radio Station Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3136:2024	Wired/wireless communication devices	EMC Test Methods for Amateur Radio Station Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3137:2014	Wired/wireless communication devices	EMC Test Methods for Radio Paging Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N
KS X 3137:2024	Wired/wireless communication devices	EMC Test Methods for Radio Paging Equipment	RE:30 MHz 6 GHz CE:150 kHz 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz V-DIP:(0 100) % TI: -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X 3139:2014	Wired/wireless communication devices	EMC Test Methods for Mobile Satellite Service Equipment Wall Probing Radar Equipment	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI: -600 V ~ 200 V	BS	N
KS X 3139:2024	Wired/wireless communication devices	EMC Test Methods for Mobile Satellite Service Equipment Wall Probing Radar Equipment	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI: -600 V ~ 200 V	BS	N
KS X 3143:2020	Wired/wireless communication devices, Electrical machinery for households	EMI test methods for residential wireless power transfer equipment	RE:9 kHz 1 GHz CE:150 kHz 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-188-125-1:1998	Household electrical appliances, Industrial electrical appliances	HIGH-ALTITUDE ELECTROMAGNETIC PULSE (HEMP) PROTECTION FOR GROUND-BASED C4I FACILITIES PERFORMING CRITICAL, TIME-URGENT MISSIONS PART 1 FIXED FACILITIES [Exception] Appendix B PULSED CURRENT INJECTION (PCI) TEST PROCEDURES	Measurement frequency: 10 kHz ~ 1 GHz	BS	Y
MIL-STD-188-125-1:2005	Household electrical appliances, Industrial electrical appliances	HIGH-ALTITUDE ELECTROMAGNETIC PULSE (HEMP) PROTECTION FOR GROUND-BASED C4I FACILITIES PERFORMING CRITICAL, TIME-URGENT MISSIONS PART 1 FIXED FACILITIES [Exception] Appendix B PULSED CURRENT INJECTION (PCI) TEST PROCEDURES	Measurement frequency : 10 kHz ~ 1 GHz	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-188-125-2:1999	Household electrical appliances, Industrial electrical appliances	HIGH-ALTITUDE ELECTROMAGNETIC PULSE (HEMP) PROTECTION FOR GROUND-BASED C4I FACILITIES PERFORMING CRITICAL, TIME-URGENT MISSIONS PART 2 TRANSPORTABLE SYSTEMS [Exception] Appendix B PULSED CURRENT INJECTION (PCI) TEST PROCEDURES	Measurement frequency: 10 kHz ~ 1 GHz	BS	Y
MIL-STD-188-125-2:2005	Household electrical appliances, Industrial electrical appliances	HIGH-ALTITUDE ELECTROMAGNETIC PULSE (HEMP) PROTECTION FOR GROUND-BASED C4I FACILITIES PERFORMING CRITICAL, TIME-URGENT MISSIONS PART 2 TRANSPORTABLE SYSTEMS [Exception] Appendix B PULSED CURRENT INJECTION (PCI) TEST PROCEDURES	Measurement frequency : 10 kHz ~ 1 GHz	BS	Y
MIL-STD-461D:1993	Electrical machinery for Industries	Requirements for the Control of Electromagnetic Interference emissions and susceptibility [exception] 5.3.8 CS109, 5.3.14 RE103, 5.3.16 RS103(10 kHz to 100 MHz, 200 V/m), 5.3.17 RS105	RE:30 Hz 18 GHz CE:30 Hz 40 GHz RS:30 Hz 40 GHz CS:30 Hz 20 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-461E:1999	Electrical machinery for Industries	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment [exception] 5.11 CS109 5.17 RE103 5.19 RS103 (2 MHz to 100 MHz, 200 V/m) 5.20 RS105	RE:30 Hz 18 GHz CE:30 Hz 40 GHz RS:30 Hz 40 GHz CS:30 Hz 20 GHz	BS	N
MIL-STD-461F:2007	Electrical machinery for Industries	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment [exception] 5.12 CS109 5.18 RE103 5.20 RS103 (2 MHz to 100 MHz, 200 V/m) 5.21 RS105	RE:30 Hz 18 GHz CE:30 Hz 40 GHz RS:30 Hz 40 GHz CS:30 Hz 20 GHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-461G:2015	Electrical machinery for Industries	REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT [exception] 5.11 CS109, 5.15 CS117, 5.19 RE103, 5.21 RS103(2 MHz to 100 MHz, 200 V/m), 5.22 RS105	RE:30 Hz 18 GHz CE:30 Hz 40 GHz RS:30 Hz 40 GHz CS:30 Hz 20 GHz CS118: ±15 kV	BS	N
MIL-STD-462D:1993	Electrical machinery for Industries	Measurement of electromagnetic interference characteristics [exception] CS109, RE103 RS105	RE:30 Hz 18 GHz CE:30 Hz 40 GHz RS:30 Hz 40 GHz CS:30 Hz 20 GHz	BS	N
MIL-STD-704F:2016	Industrial electrical appliances	DEPARTMENT OF DEFENSE INTERFACE STANDARD AIRCRAFT ELECTRIC POWER CHARACTERISTICS	SAC:400 Hz, 115 V TAC:400 Hz, 115 V SVF, TVF:Variable Frequency, 115 V SXF:60 Hz, 115 V LDC:DC 28 V HDC:DC 270 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 103:2016/BTTTT	Wired/wireless communication devices	National technical regulation on electromagnetic compatibility for Base Station, Repeater, ancillary equipment of digital cellular telecomunications systems GSM, W-CDMA FDD and LTE	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI : -600 V ~ 200 V	BS	N
QCVN 112:2017/BTTTT	Wired/wireless communication devices	National technical regulation on general electromagnetic compatibility for radio broadband data transmission equipment	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % 12 V, 24V SYSTEM(ISO 7637-2)	BS	N
QCVN 118:2018/BTTTT	Wired/wireless communication devices	National technical regulation on Electromagnetic compatibility of multimedia equipment - Emission requirements	RE:30 MHz ~ 6 GHz, CE:150 kHz ~ 30 MHz Disturbance Voltage:30 MHz ~ 2 150 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
QCVN 18:2022/BTTTT	Wired/wireless communication devices	National technical regulation on Electromagnetic Compatibility for Radio Communications Equipment	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI : -600 V ~ 200 V 12 V, 24V SYSTEM(ISO 7637-2)	BS	N
QCVN 86:2019/BTTTT	Wired/wireless communication devices	National technical regulation on electromagnetic compatibility for mobile terminals and ancillary equipment of digital cellular telecommunication systems	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz Harmonics: below 16 A Flicker: below 16 A ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI : -600 V ~ 200 V	BS	N
QCVN 96:2015/BTTTT	Wired/wireless communication devices	National technical regulation on electromagnetic compatibility for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz	RE:30 MHz ~ 6 GHz CE:150 kHz ~ 30 MHz ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz ~ 6 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz ~ 80 MHz V-DIP:(0 ~ 100) % TI : -600 V ~ 200 V	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 211:2010	Household electrical appliances, Industrial electrical appliances	Industrial, scientific and medical equipment — Radio-frequency disturbance characteristics — Limits and methods of measurement	RE:9 kHz 18 GHz, CE:9 kHz 30 MHz	BS	N
SANS 213:2011	Wired/wireless communication devices	Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurement	RE:30 MHz 1 GHz, Differential voltage: 30 MHz 2 150 MHz Radiated Power: 0.9 GHz 18 GHz	BS	N
SANS 214-1:2020	Household electrical appliances	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 1:Emission	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz DCE:150 kHz30 MHz Disturbance Power: 30 MHz 300 MHz	BS	N
SANS 214-2:2009	Household electrical appliances	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus Part 2:Immunity – Product family standard	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 230 MHz V-DIP:(0 100) %	BS	N
SANS 215:2019	lighting equipment	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment [exception] 4.2 Insertion loss	RE:9 kHz 1 GHz, CE:9 kHz 30 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 224:2010	Wired/wireless communication devices	Information technology equipment – Immunity characteristics – Limits and methods of measurement [exception] 3 phase connection equipment	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1.0 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
SANS 225:2019	Wired/wireless communication devices	Vehicles, boats and internal combustion engines – Radio disturbance characteristics – Limits and methods of measurement for the protection of on-board receivers. [exception] 5 Measurement of emissions received by an antenna on the same vehicle 6.6 Radiated emissions from components/modules. TEM cell method 6.7 Radiated emissions from components/module. Strip line method	RE:150 kHz ~ 2.5 GHz CE(VOLTAGE METHOD):150 kHz ~ 108 MHz CE(CURRENT METHOD):150 kHz ~ 245 MHz	BS	Y
SANS 2332:2017	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment – Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz, Differential voltage:30 MHz 2 150 MHz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 2335:2018	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment — Immunity requirements [exception] 3 phase connection equipment Table 2 – Immunity requirements for analogue/digital data ports: 2.2 Broadband impulse noise disturbances repetitive 2.3 Broadband impulse noise disturbances, isolated	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 6.0 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:1 A/m V-DIP:(0 100) %	BS	N
SANS 61000-3-2:2009	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	below 16 A	BS	N
SANS 61000-3-3:2009	Electrical machinery for households	Electromagnetic compatibility (EMC) - Part 3-3:Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection	below 16 A	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-11:2005	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-11:Testing and measurement techniques-Voltage dips, short interruptions and voltage variations immunity tests	V-DIP:(0 100) %	BS	N
SANS 61000-4-2:2009	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC)- Part 4-2:Testing and measurement techniques– Electrostatic discharge immunity test	below ±30 kV	BS	N
SANS 61000-4-3:2008	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-3:Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test	RS:80 MHz 6 GHz	BS	N
SANS 61000-4-4:2011	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-4:Testing and measurement techniques – Electrical fast transient/burst immunity test	EFT: below ±4 kV	BS	N
SANS 61000-4-5:2006	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility (EMC) – Part 4-5:Testing and measurement techniques – Surge immunity test	SURGE: below ±6 kV	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-4-6:2009	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) – Part 4-6:Testing and measurement techniques-Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz 230 MHz	BS	N
SANS 61000-4-6:2017	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-6:Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	CS:150 kHz 230 MHz	BS	N
SANS 61000-4-8:2009	Electrical machinery for households, Electrical machinery for Industries	Electromagnetic compatibility(EMC) - Part 4-8:Testing and measurement techniques-Power frequency magnetic field immunity test	M/F: below 100 A/m	BS	N
SANS 61000-6-1:2005	Electrical machinery for households	Electromagnetic compatibility (EMC)- Part 6-1:Generic standards - Immunity for residential, commercial and light-industrial environments [exception] 3 phase connection equipment	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.7 GHz EFT:±1 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
SANS 61000-6-2:2005	Electrical machinery for Industries	Electromagnetic compatibility (EMC)- Part 6-2 :Generic standards - Immunity for residential, commercial and light-industrial environments [exception] 3 phase connection equipment	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 2.7 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:30 A/m V-DIP:(0 100) %	BS	N
SANS 61000-6-3:2011	Electrical machinery for households	Electromagnetic compatibility (EMC)- Part 6-3 : Generic standards - Emission standard for residential, commercial and light – industrial environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N
SANS 61000-6-4:2011	Electrical machinery for Industries	Electromagnetic compatibility (EMC)- Part 6-4 :Generic standards - Emission standard for industrial environments	RE:30 MHz 6 GHz CE:150 kHz 30 MHz DCE:150 kHz 30 MHz Harmonics: below 16 A Flicker: below 16 A	BS	N
SANS 61547:2012	Lighting devices	Equipment for general lighting purposes – EMC immunity requirements	ESD:±8 kV(Air) ±4 kV(Contact) RS:80 MHz 1 GHz EFT:±2 kV SURGE:±2 kV CS:150 kHz 80 MHz M/F:3 A/m V-DIP:(0 100) %	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
VCCI 32-1-2:2016	Electrical machinery for households, Electrical machinery for Industries	VALIDATION OF TEST SITES FOR RADIATED EMISSION MEASUREMENTS	RE:30 MHz 18 GHz	BS	Y
VCCI–CISPR 32:2016	Wired/wireless communication devices	Electromagnetic compatibility of multimedia equipment - Emission Requirements	RE:30 MHz 6 GHz, CE:150 kHz 30 MHz Differential voltage: 30 MHz 2 150 MHz	BS	N

03. Electrical Testing

03.012 Software

Test method	Materials Products	Standard designation	Test range	Site	Field testing
EN 18031-1:2024	Software	Common security requirements for radio equipment - Part 1: Internet connected radio equipment	-	BS	Y
EN 18031-2:2024	Software	Common security requirements for radio equipment - Part 2: radio equipment processing data, namely Internet connected radio equipment, childcare radio equipment, toys radio equipment and wearable radio equipment	-	BS	Y
EN 18031-3:2024	Software	Common security requirements for radio equipment - Part 3: Internet connected radio equipment processing virtual money or monetary value	-	BS	Y
EN 50716:2023	Software	Railway Applications. Requirements for software development. – Table A.12	-	BS	Y
IEC 60335-1:2010 +AMD1:2013+AM D2:2016	Software	Household and similar electrical appliances – Safety – Part 1: General requirements Annex R Software evaluation	-	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60335-1:2020	Software	Household and similar electrical appliances - Safety - Part 1: General requirements Annex R Software evaluation	-	BS	Y
IEC 60730-1:2013	Software	Automatic electrical controls - Part 1: General requirements Annex H Requirements for electronic controls	-	BS	Y
IEC 60730-1:2013 /AMD1:2015	Software	Automatic electrical controls - Part 1: General requirements Annex H Requirements for electronic controls	-	BS	Y
IEC 60730-1:2013 /AMD2:2020	Software	Automatic electrical controls - Part 1: General requirements Annex H Requirements for electronic controls	-	BS	Y
IEC 60730-1:2022	Software	Automatic electrical controls - Part 1: General requirements, Annex H Requirements related to functional safety	-	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 61508-3:2010	Software	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part3: Software requirements Table B.1	-	BS	Y
IEC 62279:2015	Software	Railway applications – Communication, signalling and processing systems – Software for railway control and protection systems Table A.12	-	BS	Y
IEC 62304:2006/ AMD1:2015	Software	Medical device software – Software life cycle processes	-	BS	Y
IEC 81001-5-1:2021	Software	Health software and health IT systems safety, effectiveness and security – Part 5-1: Security – Activities in the product life cycle	-	BS	Y
IEC TR 60601-4-5:2021	Software	Medical electrical equipment – Part 4-5: Guidance and interpretation – Safety-related technical security specifications	-	BS	Y
ISO 26262-6:2018	Software	Road vehicles - Functional safety - Part 6: Product development at the software level 8.4.5, 9.4.2, Table 6	-	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO/IEC 25023:2016	Software	Systems and software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Measurement of system and software product quality	-	BS	Y
ISO/IEC 25051:2014	Software	Software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing	-	BS	Y
KC 60335-1:2022	Software	Household and similar electrical appliances - Safety - Part 1: General requirements Annex R Software evaluation	-	BS	Y
KC 62619:2019	Software	Safety requirements for secondary lithium cells and batteries Annex D Consideration of functional safety for battery management system	-	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KC 62619:2023	Software	Safety requirements for secondary Lithium cells and batteries for use in industrial applications Annex E Battery management system (considering functional safety)	-	BS	Y
KS C IEC 60730-1:2015	Software	Automatic electrical controls - Part 1: General requirements Annex H Requirements for electronic controls	-	BS	Y
KS C IEC 60730-1:2020	Software	Automatic electrical controls - Part 1: General requirements Annex H Requirements for electronic controls	-	BS	Y
KS C IEC 60730-1:2022	Software	Automatic electrical controls - Part 1: General requirements, Annex H Requirements related to functional safety	-	BS	Y
KS P IEC 62304:2015	Software	Medical device software – Software life cycle processes	-	BS	Y

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS X ISO/IEC 25023:2016	Software	Systems and software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Measurement of system and software product quality	-	BS	Y
KS X ISO/IEC 25051:2014	Software	Software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing	-	BS	Y
MISRA C++:2008	Software	Guidelines for the use of the C++ language in critical systems	-	BS	Y
MISRA C:2012	Software	Guidelines for the use of the C language in critical systems	-	BS	Y

03. Electrical Testing

03.013 Energy Efficiency

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MOTIE Notice No. 2022-33 (2022.02.15.)	Electrical/electronics appliances	Regulation of standby program [Accept only] 3. Printer 4. Facsimile 5. Copy machine 6. Scanner 7. Official replicator 10. Audio 11. DVD Player 12. Radiocassette 13. Microwave(oven) 15. Door phone 16. Wired or wireless telephones 17. Bdet 20. Hand dryers 21. Server 22. Digital converter	Input Voltage:Max. 300 V a.c., Input Current:Max. 20 A, Rated Input Frequency:(50 ~ 60) Hz, Temperature:(0 ~ 200) ℃	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
산업통상자원부 고시 제2025-145호 (2025. 8. 13)	Electrical/electronics appliances	Regulation of efficiency product [Accept only] 20. Adapter charger 26. TV monitor 42. Signage display 44. Monitor 49. Computer 50. Official repicator	Input Voltage:Max. 300 V a.c., Input Current:Max. 20 A a.c., Rated Input Frequency:(50 ~ 60) Hz, Temperature:(0 ~ 200) °C Adapter charger:150 W or less, TV set:screen 47 cm ~ 216 cm or less, Signage display:screen 30.48 cm ~ 154.94 cm or less, Monitor: 153 cm or less	BS	N

03. Electrical Testing

03.014 Environmental and Reliability

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ES 95400-10:2013	Electrical materials and components	Environment Reliability test for Electronic Equipment for Vehicle [exception] 3.5.14 Ozone resistance test	Temperature : (-70 ~ 200) °C Humidity : (10 ~ 98) % R.H. Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s² Temprature : 35 °C NaCl concentration : 5 %	BS	N
ES 96100-02:2007	Electrical materials and components	CAR AUDIO (RADIO/CDC/CDP/AV) Reliability test standard	Temperature:(-70 ~ 200) °C Humidity:(10 ~ 98) % R.H. Frequency:(5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N
IEC 60068-2-11:2021	Electrical materials and components	Environmental testing – Part 2-11: Tests – Test Ka: Salt mist	Temprature : 35 °C NaCl concentration : 5 %	BS	N
IEC 60068-2-13:2021	Electrical materials and components	Environmental testing procedures - Part 2-13: Tests – Test M: Low air pressure	Air Pressure : (7.1 ~ 101.33) kPa	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-14:2023	Electrical materials and components	Environmental testing –Part2-14:Tests–Test N:Change of temperature [Exception] 9. Test Nc:Rapid change of temperature, two-fluid-bath method	Temperature : (-70 ~ 150) °C	BS	N
IEC 60068-2-1:2025	Electrical materials and components	Environmental testing - Part 2-1:Tests - Tests A:Cold	Temperature : (–70 ~ 5) °C	BS	N
IEC 60068-2-27:2008	Electrical materials and components	Environmental testing - Part2-27:Tests - Test Ea and guidance:Shock	Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N
IEC 60068-2-2:2025	Electrical materials and components	Environmental testing - Part 2-2:Tests - Test B:Dry heat	Temperature : (30 ~ 200) °C	BS	N
IEC 60068-2-30:2025	Electrical materials and components	Environmental testing - Part 2-30:Tests - Test Db:Damp heat, cyclic (12 h + 12 h cycle)	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
IEC 60068-2-31:2008	Electrical materials and components	Environmental testing - Part 2-31:Tests - Test Ec:Rough handling shock, primarily for equipment- type specimens	Drop Height : (25 ~ 1 500) mm	BS	N
IEC 60068-2-52:2017	Electrical materials and components	Environmental testing - Part 2-52:Tests - Test Kb:Salt mist, cyclic (sodium chloride solution)	Temprature : (15 35) °C, 40 °C NaCl concentration : 5 % Humidity : (45 55) % R.H., 93 % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60068-2-53:2010	Electrical materials and components	Environmental testing – Part 2-53:Tests and guidance – Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests	Temperature : (-40 ~ 150) °C Humidity : (20 ~ 98) % R.H. Vibration Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 909) m/s²	BS	N
IEC 60068-2-64: 2008+AMD1:2019	Electrical materials and components	Environmental Testing - Part 2-64:Tests methods - Test Fh:Vibration, broad-band random and guidance	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
IEC 60068-2-66:1994	Electrical materials and components	Environmental testing - Part 2:Test methods - Test Cx:Damp heat, steady state (unsaturated pressurized vapour)	Temperature : 110 °C, 120 °C, 130 °C Humidity : 85 % R.H.	BS	N
IEC 60068-2-67:1995+AMD1:2019	Electrical materials and components	Environmental testing - Part 2-67:Tests - Test Cy:Damp heat, steady state, accelerated test primarily intended for components	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
IEC 60068-2-6:2007	Electrical materials and components	Environmental testing - Part 2-6:Tests - Test Fc:Vibration (sinusoidal)	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
IEC 60068-2-78: 2025	Electrical materials and components	Environmental testing - Part 2-78:Tests - Test Cab:Damp heat, steady state	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
IEC 60255-27:2013	Electrical materials and components	Measuring relays and protection equipment – Part 27: Product safety requirements [Accept only] 10.6.4.4 Insulation resistance	Insulation voltage: (450 ~ 550) Vd.c. Insulation resistance: less than 4 000 MΩ	BS	N
IEC 60529:1989+ A1:1999+A2:2013	Electrical materials and components	Degrees of protection provided by enclosures (IP Code)	IPX1, IPX2, IPX3, IPX4, IPX5, IPX6, IPX7, IPX8, IPX9, IP1X, IP2X, IP3X ,IP4X ,IP5X ,IP6X	BS	N
IEC 60571:2012	Electrical materials and components	Railway applications - Electronic equipment used on rolling stock [exception] 12.2.7 Supply overvoltages 12.2.8 Surges, electrostatic discharge and transient burst susceptibility tests 12.2.9 Radio frequency test	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s² Temperature : (-70 ~ 150) °C Humidity : (10 ~ 98) % R.H. Temperature : 35 °C NaCl concentration : 5 %	BS	N
IEC 61373:2010	Electrical materials and components	Railway applications - Rolling stock equipment - Shock and vibration tests	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
ISO 16750-3:2023	Electrical materials and components	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 3:Mechanical loads [Exception] Test X — Passenger car, components on fuel rail (gasoline engine with GDI-system)	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s² Drop Height : (25 ~ 1 500) mm	BS	N
ISO 16750-4:2023	Electrical materials and components	Road vehicles -Environmental conditions and testing for electrical and electronic equipment-Part4:Climatic loads [Exception] 5.4 Ice water shock test, 5.8 Corrosion test with flow of mixed gas, 5.9 Solar radiation	Temperature : (-70 ~ 200) °C Humidity : (10 ~ 98) % R.H. Temprature : 35 °C NaCl concentration : 5 %	BS	N
ISO 20653:2023	Electrical materials and components	Road vehicles — Degrees of protection(IP code) — Protection of electrical equipment against foreign objects, water and access	IPX1, IPX2, IPX3, IPX4, IPX4K, IPX5, IPX6, IPX6K, IPX7, IPX8, IPX9K, IP1X, IP2X, IP3X ,IP4X ,IP5KX ,IP6KX	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C 7620:2003	Electrical materials and components	Railway car luminaries for fluorescent lamps [exception] 7.2 Characteristic test 7.8 Life cycle test 7.11 Luminous flux rate test 7.13 Noise strength test	Voltage : DC 24 V, DC 100 V Current : (0 ~ 200) A Temperature : (0 ~ 200) °C	BS	N
KS C IEC 60068-2-11:2021	Electrical materials and components	Basic environmental testing procedures - Part 2-11:Tests - Test Ka:Salt mist	Temprature : 35 °C NaCl concentration : 5 %	BS	N
KS C IEC 60068-2-13:2021	Electrical materials and components	Basic environmental testing procedures - Part 2-13:Tests - Test M: Low air pressure	Air Pressure : (7.1 ~ 101.33) kPa	BS	N
KS C IEC 60068-2-14:2023	Electrical materials and components	Environmental testing - Part2-14:Tests - Test N:Change of temperature [Exception] 9. Test Nc:Rapid change of temperature, two-fluid-bath method	Temperature : (-70 ~ 150) °C	BS	N
KS C IEC 60068-2-1:2007	Electrical materials and components	Environmental testing - Part 2-1:Tests - Tests A:Cold	Temperature : (-70 ~ 5) °C	BS	N
KS C IEC 60068-2-27:2008	Electrical materials and components	Environmental testing - Part2-27:Tests - Test Ea and guidance:Shock	Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N
KS C IEC 60068-2-2:2007	Electrical materials and components	Environmental testing - Part 2-2:Tests - Test B:Dry heat	Temperature : (30 ~ 200) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-30:2005	Electrical materials and components	Environmental testing - Part 2-30:Tests - Test Db:Damp heat, cyclic (12 h + 12 h cycle)	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
KS C IEC 60068-2-31:2008	Electrical materials and components	Environmental testing - Part 2-31:Tests - Test Ec:Rough handling shock, primarily for equipment - type specimens	Drop hight : (25 ~ 1 500) mm	BS	N
KS C IEC 60068-2-38:2021	Electrical materials and components	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	Temperature : (-10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
KS C IEC 60068-2-52:2017	Electrical materials and components	Environmental testing - Part 2-52:Tests - Test Kb:Salt mist, cyclic (sodium chloride solution)	Temprature : (15 35) °C, 40 °C NaCl concentration : 5 % Humidity : (45 55) % R.H., 93 % R.H.	BS	N
KS C IEC 60068-2-53:2010	Electrical materials and components	Environmental testing – Part 2-53:Tests and guidance – Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests	Temperature : (-40 ~ 150) °C Humidity : (20 ~ 98) % R.H Vibration Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 909) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60068-2-64:2019	Electrical materials and components	Environmental Testing - Part 2-64:Tests methods - Test Fh:Vibration, broad-band random and guidance	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
KS C IEC 60068-2-67:2019	Electrical materials and components	Environmental testing – Part 2-67:Tests – Test Cy:Damp heat, steady state, accelerated test primarily intended for components	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
KS C IEC 60068-2-6:2015	Electrical materials and components	Environmental testing - Part 2-6:Tests - Test Fc:Vibration (sinusoidal)	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
KS C IEC 60068-2-78:2012	Electrical materials and components	Environmental testing - Part 2-78:Tests - Test Cab:Damp heat, steady state	Temperature : 30 °C, 40 °C Humidity : (10 ~ 98) % R.H.	BS	N
KS C IEC 60068-3-4:2001	Electrical materials and components	Environmental testing - Part 3-4:Supporting documentation and guidance – Damp heat tests	Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H.	BS	N
KS C IEC 60255-21-1:1988	Electrical materials and components	Electrical relays - Part 21:Vibration, shock, bump and seismic tests on measuring relays and protection equipment - section one:Vibration test (sinusoidal)	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS C IEC 60255-21-2:1988	Electrical materials and components	Electrical relays - Part 21:Vibration, shock, bump and seismic tests on measuring relays and protection equipment – section two:Shock and bump tests [exception] Bump test	Frequency : (5 ~ 2 000) Hz Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N
KS C IEC 60529:2013	Electrical materials and components	Degrees of protection provided by enclosures (IP Code)	IPX1, IPX2, IPX3, IPX4, IPX5, IPX6, IPX7, IPX8, IPX9, IP1X, IP2X, IP3X ,IP4X ,IP5X ,IP6X	BS	N
KS C IEC 60571:2012	Electrical materials and components	Railway applications - Electronic equipment used on rolling stock [exception] 12.2.7 Supply overvoltages 12.2.8 Surges, electrostatic discharge and transient burst susceptibility tests 12.2.9 Radio frequency test	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s² Temperature : (-70 ~ 150) °C Humidity : (10 ~ 98) % R.H. Temperature : 35 °C NaCl concentration : 5 %	BS	N
KS C IEC 61373:2010	Electrical materials and components	Railway applications - Rolling stock equipment - Shock and vibration tests	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 1 500) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
KS R 1034:2023	Electrical materials and components	Vibration testing methods for automobile parts	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
KS R 9144:2021	Electrical materials and components	Test methods for vibration of parts of railway rolling stock	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N
KS R 9186:2021	Electrical materials and components	Parts for railway signal - Vibration test methods	Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-PRF-28800F: 1996	Electrical materials and components	PERFORMANCE SPECIFICATION TEST EQUIPMENT FOR USE WITH ELECTRICAL AND ELECTRONIC EQUIPMENT, GENERAL SPECIFICATION FOR 4.5.3.1 c. Environmental Stress Screening (random vibration) 4.5.3.1 d. Environmental Stress Screening (temperature cycling) 4.5.5.1 Temperature and Humidity Tests 4.5.5.2 Altitude Test 4.5.5.3.1 Random Vibration Test 4.5.5.3.2 Sinusoidal Vibration Test 4.5.5.4.1 Functional Shock Test 4.5.5.4.2 Transit drop test 4.5.5.4.3 Bench handling test 4.5.5.5.1 Watertight Test, Class 1 and air tight transit case 4.5.6.2 Salt Fog Tests	Frequency: (10 ~ 2 000) Hz Temperature: (-51 ~ 71) °C Humidity: (10 ~ 98) % R.H. Altitude: 4 600 m Shock Acceleration: 294 m/s² Depth of Immersion: 0.9 m Temprature:35 °C, NaCl concentration:5 %	BS	N
MIL-STD-167-1:1 974	Electrical materials and components	MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL VIBRATION)	Frequency : (4 ~ 50) Hz	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-167-1A: 2005	Electrical materials and components	MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL VIBRATION)	Frequency : (4 ~ 33) Hz	BS	N
MIL-STD-202G:2002	Electrical materials and components	TEST METHOD STANDARD ELECTRONIC AND ELECTRICAL COMPONENT PARTS 101E Salt Atmosphere (Corrosion) 103B Humidity (Steady State) 105C Barometric Pressure (Reduced) 106G Moisture Resistance 107G Thermal Shock Table 107-I 108A LIFE (At Elevated Ambient Temperature) 201A Vibration 204D Vibration, High Frequency 213B Shock (Specified Pulse) 214A Random Vibration	Air Pressure : (11.6 ~ 101.33) kPa Temperature : (-70 ~ 200) °C Humidity : (10 ~ 98) % R.H. NaCl concentration : 5 % Frequency : (4 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s^2 Shock Acceleration : (1.1 ~ 980) m/s^2	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-202H:2015	Electrical materials and components	TEST METHOD STANDARD ELECTRONIC AND ELECTRICAL COMPONENT PARTS 101 Salt Atmosphere (Corrosion) 103 Humidity (Steady State) 105 Barometric Pressure (Reduced) 106 Moisture Resistance 107 Thermal Shock Table 107-I 108 LIFE (At Elevated Ambient Temperature) 201 Vibration 204 Vibration, High Frequency 213 Shock (Specified Pulse) 214 Random Vibration	Air Pressure : (11.6 ~ 101.33) kPa Temperature : (-70 ~ 200) °C Humidity : (10 ~ 98) % R.H. NaCl concentration : 5 % Frequency : (4 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 980) m/s²	BS	N
MIL-STD-810C:1975	Electrical materials and components	Environmental Test Methods 501.1 High Temperature 502.1 Low Temperature 503.1 Temperature Shock 507.1 Humidity 514.2 Vibration 516.2 Shock 519.2 Gunfire Vibration, AIRCRAFT	Temperature : (-70 ~ 150) °C Temperature : (60 ~ 200) °C Temperature : (-65 ~ 0) °C Temperature : (10 ~ 90) °C Humidity : (10 ~ 98) % R.H. Frequency : (5 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s² Shock Acceleration : (1.1 ~ 980) m/s²	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810E:1989	Electrical materials and components	ENVIRONMENTAL TEST METHODS AND ENGINEERING GUIDELINES 500.3 Low Pressure (Altitude) Procedure I - Storage Procedure II - Operation 501.3 High temperature 502.3 Low temperature 503.3 Temperature shock 507.3 Humidity 509.3 Salt Fog 514.4 Vibration [Exception] Category 2 - Large Assembly Transport Category 3 - Loose Cargo Transport 516.4 Shock [Exception] Procedure VII - Pyrotechnic shock Procedure VIII - Rail impact Procedure IX - Catapult launch/arrested landing 519.4 GUNFIRE VIBRATION, AIRCRAFT	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(5 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s^2 Shock Acceleration:(1.1 ~ 980) m/s^2	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810F:2000	Electrical materials and components	TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS 500.4 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.4 Salt Fog 512.4 Immersion Procedure I - Immersion 514.5 Vibration [Exception] Category 5 – Truck/trailer/tracked - loose cargo 516.5 Shock [Exception] Procedure VII – Rail impact Procedure VIII – Catapult Launch/Arrested Landing 519.5 Gunfire Vibration 520.2 Temperature, Humidity, Vibration, and Altitude	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(5 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s^2 Shock Acceleration:(1.1 ~ 980) m/s^2 Depth of Immersion:1 000 mm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810F:2003	Electrical materials and components	TEST METHOD STANDARD FOR ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS 500.4 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.4 High temperature 502.4 Low temperature 503.4 Temperature shock 507.4 Humidity 509.4 Salt Fog 512.4 Immersion Procedure I - Immersion 514.5 Vibration [Exception] Category 5 – Truck/trailer/tracked - loose cargo 516.5 Shock [Exception] Procedure VII – Rail impact Procedure VIII – Catapult Launch/Arrested Landing 519.5 Gunfire Vibration 520.2 Temperature, Humidity, Vibration, and Altitude	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(5 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s² Shock Acceleration:(1.1 ~ 980) m/s² Depth of Immersion:1 000 mm	BS	N
MIL-STD-810G CHG1:2014	Electrical materials and components	TEST METHOD STANDARD ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		LABORATORY TESTS 500.6 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.6 High temperature 502.6 Low temperature 503.6 Temperature shock 507.6 Humidity 509.6 Salt Fog 512.6 Immersion Procedure I - Immersion 514.7 Vibration [Exception] Category 5 - Truck/trailer - Loose Cargo 516.7 Shock [Exception] Procedure VI - Bench Handling Procedure VII - Pendulum Impact Procedure VIII - Catapult Lanch/Arrested Landing 519.7 Gunfire Shock 520.4 Temperature, Humidity, Vibration, and Altitude 528.1 Mechanical Vibrations Of Shipboard Materiel (Type I – ENVIRONMENTAL VIBRATION)	Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(4 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s² Shock Acceleration:(1.1 ~ 980) m/s² Depth of Immersion:1 000 mm		
MIL-STD-810G:2008	Electrical materials and	TEST METHOD STANDARD ENVIRONMENTAL	Air Pressure:(7.1 ~ 101.33) kPa	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
	components	ENGINEERING CONSIDERATIONS AND LABORATORY TESTS 500.5 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.5 High temperature 502.5 Low temperature 503.5 Temperature shock 507.5 Humidity 509.5 Salt Fog 512.5 Immersion Procedure I - Immersion 514.6 Vibration [Exception] Category 5 – Truck/Trailer/Tracked - Loose Cargo 516.6 Shock [Exception] Procedure VII – Pendulum Impact Procedure VIII – Catapult Launch/Arrested Landing 519.6 Gunfire Shock 520.3 Temperature, Humidity, Vibration, and Altitude 528 MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL VIBRATION)	Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(4 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s^2 Shock Acceleration:(1.1 ~ 980) m/s^2 Depth of Immersion:1 000 mm		

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810H w/Change 1:2022	Electrical materials and components	TEST METHOD STANDARD ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS 500.6 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.7 High temperature 502.7 Low temperature 503.7 Temperature shock 507.6 Humidity 509.8 Salt Fog / Corrosive Environments [Exception] Procedure III – Natural Environment 512.6 Immersion Procedure I - Immersion 514.8 Vibration [Exception] Category 5 - Truck/trailer - Loose Cargo 516.8 Shock [Exception] Procedure VII - Pendulum Impact Procedure VIII - Catapult Lanch/Arrested Landing 519.8 Gunfire Shock (Procedure III) 520.5 Combined Environments 528.1 MECHANICAL	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(4 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s^2 Shock Acceleration: (1.1 ~ 980) m/s^2 Depth of Immersion:1 000 mm	BS	N

Test method	Materials Products	Standard designation	Test range	Site	Field testing
		VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL VIBRATION)			

Test method	Materials Products	Standard designation	Test range	Site	Field testing
MIL-STD-810H:2019	Electrical materials and components	TEST METHOD STANDARD ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS 500.6 Low Pressure (Altitude) Procedure I - Storage/Air Transport. Procedure II - Operation/Air Carriage. 501.7 High temperature 502.7 Low temperature 503.7 Temperature shock 507.6 Humidity 509.7 Salt Fog 512.6 Immersion Procedure I - Immersion 514.8 Vibration [Exception] Category 5 - Truck/trailer - Loose Cargo 516.8 Shock [Exception] Procedure VII - Pendulum Impact Procedure VIII - Catapult Lanch/Arrested Landing 519.8 Gunfire Shock (Procedure III) 520.5 Combined Environments 528.1 MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT (TYPE I – ENVIRONMENTAL VIBRATION)	Air Pressure:(7.1 ~ 101.33) kPa Temperature: (-70 ~ 150) °C Temperature:(60 ~ 200) °C Temperature:(-65 ~ 0) °C Temperature:(10 ~ 90) °C, Humidity:(10 ~ 98) % R.H. Temperature:35 °C, NaCl concentration:5 %, Frequency:(4 ~ 2 000) Hz, Vibration Acceleration:(1.1 ~ 147) m/s^2 Shock Acceleration: (1.1 ~ 980) m/s^2 Depth of Immersion:1 000 mm	BS	N

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Test method	Materials Products	Standard designation	Test range	Site	Field testing
RTCA DO-160G:2010	Electrical materials and components	ENVIRONMENTAL CONDITIONS AND TEST PROCEDURES FOR AIRBORNE EQUIPMENT Section 4 Temperature and Altitude [Exception] 4.6.2 Decompression Test 4.6.3 Overpressure Test Section 5 Temperature Variation Section 6 Humidity Section 7 Operational Shocks and Crash Safety [Exception] 7.3.3 Test Procedure 2 (Sustained) Section 8 Vibration Section 14 Salt Fog	Air Pressure : (9.12 ~ 101.33) kPa Temperature : (-55 ~ 85) °C Humidity : (10 ~ 98) % R.H. NaCl concentration : 5 % Frequency : (4 ~ 2 000) Hz Vibration Acceleration : (1.1 ~ 147) m/s^2 Shock Acceleration : (1.1 ~ 400) m/s^2	BS	N

END.