CERTIFICATE OF ACCREDITATION

Korea Testing Certification

Accreditation No. : KT005

Corporation Registration No. : 134122 - 0007304

Address of Laboratory : 22 Heungan-daero 27beon-gil, Gunpo-si, Gyeonggi-do, Korea
57, Yangcheong 3-gil, Ochang-eup, Cheongwon-gu, Cheongju-si Chungcheongbuk-do, Korea
69, Taejeong-ro, Maengdong-myeon, Eumseong-gun, Chungcheongbuk-do, Korea

date of Initial Accreditation : April 16, 1994

Duration : January 4, 2018 ~ January 3, 2022

Scope of Accreditation : Attached Annex

Date of issue : February 12, 2020

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 Communique).

LEE Seung Woo

Administrator
Korea Laboratory Accreditation Scheme

No. KT005

Address of Laboratory : 22 Heungan-daero 27beon-gil, Gunpo-si, Gyeonggi-do, Korea

03 Electric Test

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ISO/IEC 11801 Ed. 2.2 en : 2011	Information technology - Generic cabling for customer premises	frequency : 600 ㎒ or less	
IEC 60096-0-1 Ed. 3.0 b : 2012	Radio Frequency cables. - Part 0 - 1 : Guide to the design of detail specifications - Coaxial cables	frequency : 8 500 ㎒ or less	
IEC 60227-1 Ed. 3.0 b : 2007	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V / 750 V or less	
IEC 60227-2 Ed. 2.1 b : 2003	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V / 750 V or less	
IEC 60227-3 Ed. 2.1 b : 1997	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 3 : Non - sheathed cables for fixed wiring	450 V / 750 V or less	
IEC 60227-4 Ed. 2.1 b : 1997	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 4 : Sheathed cables for fixed wiring	450 V / 750 V or less	
IEC 60227-5 Ed. 3.0 b : 2011	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 5 : Flexible cables (cords)	450 V / 750 V or less	
IEC 60227-6 Ed. 3.0 b : 2001	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 6 : Lift cables and cables for flexible connections	450 V / 750 V or less	
IEC 60227-7 Ed. 1.2 b : 2012	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 7 : Flexible cables screened and unscreened with two or more conductors	450 V / 750 V or less	
IEC 60228 Ed. 3.0 b : 2004	Conductors of insulated cables	2 500 ㎟ or less	
IEC 60245-1 Ed. 4.1 b : 2008	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V / 750 V or less	

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60245-2 Ed. 2.2 b : 1998	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V / 750 V or less	
IEC 60245-3 Ed. 2.0 b : 1994/Amd.2 : 2011	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 3 : Heat resistant silicone insulated cables	450 V / 750 V or less	
IEC 60245-4 Ed. 3.0 b : 2011	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 4 : Cords and flexible cables	450 V / 750 V or less	
IEC 60245-5 Ed. 2.0 b : 1994/Amd.1 : 2003	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 5 : Lift cables	450 V / 750 V or less	
IEC 60245-6 Ed. 2.0 b : 1994/Amd.2 : 2003	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 6 : Arc welding electrode cables	450 V / 750 V or less	
IEC 60245-7 Ed. 1.0 b : 1994/AMD1 : 1997	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 7 : Heat resistant ethylene - vinyl acetate rubber insulated cables	450 V / 750 V or less	
IEC 60245-8 Ed. 1.2 b : 2012	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 8 : Cords for applications requiring high flexibility	450 V / 750 V or less	
IEC 60317-0-1 Ed. 4.0 b : 2013	Specifications for particular types of winding wires - Part 0 - 1 : General requirements - Enamelled round copper wire	nominal diameter: 5.0 ㎜ or less	
IEC 60317-0-2 Ed. 3.0 b : 2013	Specifications for particular types of winding wires - Part 0 - 2 : General requirements - Enamelled rectangular copper wire	nominal area: 88.74 ㎟ or less	
IEC 60317-0-3 Ed. 3.1 b : 2013	Specifications for particular types of winding wires - Part 0 - 3 : General requirements - Enamelled round aluminium wire	nominal diameter: 5.0 ㎜ or less	

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60317-0-4 Ed. 3.0 b : 2015	Specifications for particular types of winding wires - Part 0 - 4 : General requirements - Glass - fibre wound resin or varnish impregnated, bare or enamelled rectangular copper wire	nominal area: 88.74 ㎟ or less	
IEC 60317-0-5 Ed. 2.0 b : 2006	Specifications for particular types of winding wires - Part 0 - 5 : General requirements - Glass - fibre braided, resin or varnish impregnated, bare or enamelled rectangular copper wire	nominal area: 88.74 ㎟ or less	
IEC 60317-0-6 Ed. 1.1 b : 2007	Specifications for particular types of winding wires - Part 0 - 6 :General requirements - Glass - fibre wound resin or varnish impregnated, bare or enamelled round copper wire	nominal diameter: 5.0 ㎜ or less	
IEC 60317-1 Ed. 4.0 b : 2010	Specifications for particular types of winding wires - Part 1 : Polyvinyl acetal enamelled round copper wire, class 105	temperature : 155 ℃ or less	
IEC 60317-15 Ed. 3.1 b : 2010	Specifications for particular types of winding wires - Part 15 : Polyesterimide enamelled round aluminium wire, class 180	temperature : 200 ℃ or less	
IEC 60317-17 Ed. 3.0 b : 2010	Specifications for particular types of winding wires - Part 17 : Polyvinyl acetal enamelled rectangular copper wire, class 105	temperature : 155 ℃ or less	
IEC 60317-18 Ed. 3.1 b: 2010	Specifications for particular types of winding wires - Part 18 : Polyvinyl acetal enamelled rectangular copper wire, class 120	temperature : 155 ℃ or less	
IEC 60317-2 Ed. 4.0 b : 2012	Specifications for particular types of winding wires - Part 2 : Solderable polyurethane enamelled round copper wire, class 130, with a bonding layer	temperature : 155 ℃ or less	

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60317-22 Ed. 3.1 b : 2010	Specifications for particular types of winding wires - Part 22 : Polyester or polyesterimide enamelled round copper wire overcoated with polyamide, class 180	temperature : 200 ℃ or less	
IEC 60317-3 Ed. 3.1 b : 2011	Specifications for particular types of inding wires - Part 3 : Polyester enamelled round copper wire, class 155	temperature : 175 ℃ or less	
IEC 60317-4 Ed. 4.0 b : 2015	Specifications for particular types of inding wires - Part 4 : Solderable polyurethane enamelled round copper wire, class 130	temperature : 155 ℃ or less	
IEC 60317-8 Ed. 4.0 b : 2010	Specifications for particular types of inding wires - Part 8 : Polyesterimide enamelled round copper wire, class 180	temperature : 200 ℃ or less	
IEC 60332-1-1 Ed. 1.1 b : 2015	Tests on electric and optical fibre cables under fire conditions - Part 1 - 1 : Test for vertical flame propagation for a single insulated wire or cable - Apparatus	height : (1 200 ± 250) ㎜ width : (300 ± 25) ㎜ inside depth : (450 ± 25) ㎜	
IEC 60332-1-2 Ed. 1.1 b : 2015	Tests on electric and optical fibre cables under fire conditions - Part 1 - 2 : Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre - mixed flame	distance : (475 ± 5) ㎜ angel : 45° ± 2°	
IEC 60332-1-3 Ed. 1.1 b : 2015	Tests on electric and optical fibre cables under fire conditions - Part 1 - 3 : Test for vertical flame propagation for a single insulated wire or cable - Procedure for determination of flaming droplets/particles	distance : (475 ± 5) ㎜ angel : 45° ± 2°	

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60502-1 Ed. 2.1 b : 2009	Power cables with extruded insulation and their accessories for rated voltages from 1 kV(Um = 1.2 kV) up to 30 kV(Um = 36 kV) - Part 1 : Cables for rated voltages of 1 kV(Um = 1.2 kV) and 3 kV(Um = 3.6 kV)	3.6 kV or less	
IEC 60502-2 Ed. 3.0 b : 2014	Power cables with extruded insulation and their accessories for rated voltages from 1 kV(Um = 1.2 kV) up to 30 kV (Um = 36 kV) - Part 2 : Cables for rated voltages from 6 kV(Um = 7.2 kV) up to 30 kV (Um = 36 kV) (Exception) 16.3 Partial discharge test 16.4 Voltage test 16.5 Electrical test on oversheath of the cable 17.9 Voltage test for 4 h 18. Type tests, electrical 19.24 Water penetration test 20. Electrical tests after installation	36 kV or less	
IEC 60684-2 Ed. 3.0 b : 2011	Flexible insulating sleeving - Part 2 : Methods of test	(590 ~ 610) ℃	
IEC 60728-1 Ed. 5.0 en : 2014	Cable networks for television signals, sound signals and interactive services - Part 1 : System performance of forward paths	(30 ~3 000) ㎒	
IEC 60754-1 Ed. 3.0 b : 2011	Test on gases evolved during combustion of materials from cables - Part 1 : Determination of the halogen acid gas content	halogen acid : 5 mg/g or less	
IEC 60754-2 Ed. 2.0 b : 2011	Test on gases evolved during combustion of materials from cables - Part 2 : Determination of acidity (by pH measurement) and conductivity	accuracy : ± 0.1 ㎎, pH : ± 0.02 conductivity: 10^{-2} ㎲/㎜	
IEC 60811-201 : 2017	Electric and optical fibre cables - Test methods for non - metallic materials - Part 201 : General tests - Measurement of insulation thickness	0.01 ㎜ or less	

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60811-202 : 2017	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202 : General tests - Measurement of thickness of non - metallic sheath	0.01 ㎜ or less	N
IEC 60811-203 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 203 : General tests - Measurement of overall dimensions	25 ㎜	N
IEC 60811-501 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501 : Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds	(23 ± 5) ° C	N
IEC 60811-401 : 2017	Electric and optical fibre cables - Test methods for non - metallic materials - Part 401 : Miscellaneous tests - Thermal ageing methods - Ageing in an air oven	Less than 2 % of the volume of the oven	N
IEC 60811-412 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 412 : Miscellaneous tests - Thermal ageing methods - Ageing in an air bomb	Air pressure : (0.55 ± 0.02) ㎫	N
IEC 60811-402 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 402 : Miscellaneous tests - Water absorption tests	Specimen thickness : (0.8~0.9) mm (1.0~1.2) mm (1.2~1.6) mm (1.6~2.0) mm more than 2.0 mm	N
IEC 60811-502 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 502 : Mechanical tests - Shrinkage test for insulations	Measuring device of scale division 0.5 mm	N
IEC 60811-503 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 503 : Mechanical tests - Shrinkage test for sheaths	Measuring tape of scale division 1mm	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60811-606 : 2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 606 : Physical tests - Methods for determining the density	(23.0 ± 0.1) ℃	N
IEC 60811-504 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 504 : Mechanical tests - Bending tests at low temperature for insulation and sheaths	Mandrel diameter : (4 ~ 5) times the diameter of the test piece	N
IEC 60811-505 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 505 : Mechanical tests - Elongation at low temperature for insulations and sheaths	Ambient temperature	N
IEC 60811-506 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 506 : Mechanical tests - Impact test at low temperature for insulations and sheaths	Impact height : 100 mm	N
IEC 60811-403 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 403 : Miscellaneous tests - Ozone resistance test on cross - linked compounds	Mandrel diameter : (4 ± 0.01) ㎜ (5 ± 0.01) ㎜ (6 ± 0.01) ㎜ (8 ± 0.01) ㎜ (10 ± 0.01) ㎜	N
IEC 60811-404 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 404 : Miscellaneous tests - Mineral oil immersion tests for sheaths	16 h ~ 24 h	N
IEC 60811-507 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 507 : Mechanical tests - Hot set test for cross - linked materials	Test temperature : (200 ± 3) ℃ Tensile strength : (20 ± 0.5) N/㎠	N
IEC 60811-508 : 2017	Electric and optical fibre cables - Test methods for non - metallic materials - Part 508 : Mechanical tests - Pressure test at high temperature for insulation and sheaths	Blade edge : (0.7±0.01) mm	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60811-509 : 2017	Electric and optical fibre cables - Test methods for non - metallic materials - Part 509 : Mechanical tests - Test for resistance of insulations and sheaths to cracking (heat shock test)	Test temperature : (150 ± 3) ℃ Test duration : 1 h	N
IEC 60811-405 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 405 : Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths	(200.0 ± 0.5) ℃	N
IEC 60811-409 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 409 : Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths	An analytical balance with a sensitivity of 0.1 mg	N
IEC 60811-406 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 406 : Miscellaneous tests - Resistance to stress cracking of polyethylene and polypropylene compounds	(50.0 ± 0.5) ℃	N
IEC 60811-510 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 510 : Mechanical tests - Methods specific to polyethylene and polypropylene compounds - Wrapping test after thermal ageing in air	Test temperature : (100 ± 2) ℃ Test duration : 14days	N
IEC 60811-511 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 511 : Mechanical tests - Measurement of the melt flow index of polyethylene compounds	(190 ± 0.5) ℃	N
IEC 60811-605 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 605 : Physical tests - Measurement of carbon black and/or mineral filler in polyethylene compounds	An analytical balance with a sensitivity of 0.0001 g	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60811-607 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 607 : Physical tests - Test for the assessment of carbon black dispersion in polyethylene and polypropylene	Less than 3 % carbon black content	N
IEC 60811-301 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 301 : Electrical tests - Measurement of the permittivity at 23 ℃ of filling compounds	(23.0 ± 2) ℃	N
IEC 60811-302 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 302 : Electrical tests - Measurement of the d.c. resistivity at 23 ℃ and 100 ℃ of filling compounds	(23.0 ± 2) ℃, (100.0 ± 3) ℃	N
IEC 60811-411 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 411 : Miscellaneous tests - Low - temperature brittleness of filling compounds	(-10 ± 1) ℃	N
IEC 60811-601 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 601 : Physical tests - Measurement of the drop point of filling compounds	(-5 ~ 300) ℃	N
IEC 60811-602 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 602 : Physical tests - Separation of oil in filling compounds	(50 ± 2) ℃	N
IEC 60811-603 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 603 : Physical tests - Measurement of total acid number of filling compounds	50 mL burette graduated in 0.1 mL	N
IEC 60811-604 : 2012	Electric and optical fibre cables - Test methods for non - metallic materials - Part 604 : Physical tests - Measurement of absence of corrosive components in filling compounds	(80 ± 2) ℃	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KC 60227-1 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750V - Part 1 : General requirements	450 V or less / 750 V or less	N
KC 60227-2 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V or less / 750 V or less	N
KC 60227-3 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 3 : Non-sheathed cables for fixed wiring	450 V or less / 750 V or less	N
KC 60227-4 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 4 : Sheathed cables for fixed wiring	450 V or less / 750 V or less	N
KC 60227-5 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 5 : Flexible cables (cords)	450 V or less / 750 V or less	N
KC 60227-6 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 6 : Lift cables and cables for flexible connections	450 V or less / 750 V or less	N
KC 60227-7 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 7 : Flexible cables screened and unscreened with two or more conductors	450 V or less / 750 V or less	N
KC 60228 : 2015	Conductors of insulated cables	2 500 ㎟ or less	N
KC 60245-1 : 2015	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V or less / 750 V or less	N
KC 60245-2 : 2015	Rubber insulated cables-Rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V or less / 750 V or less	N
KC 60245-3 : 2015	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 3 : Heat resistant silicone insulated cables	450 V or less / 750 V or less	N
KC 60245-4 : 2015	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 4 : Cords and flexible cables	450 V or less / 750 V or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KC 60245-5 : 2015	Rubber insulated cables-Rated voltages up to and including 450 V / 750 V - Part 5 : Lift cables	450 V or less / 750 V or less	N
KC 60245-6 : 2015	Rubber insulated cables-Rated voltages up to and including 450 V / 750 V - Part 6 : Arc welding electrode cables	450 V or less / 750 V or less	N
KC 60245-7 : 2015	Rubber insulated cables-Rated voltages up to and including 450 V / 750 V - Part 7 : Heat resistant ethylene - vinyl acetate rubber insulated cables	450 V or less / 750 V or less	N
KC 60245-8 : 2015	Rubber insulated cables-Rated voltages up to and including 450 V / 750 V - Part 8 : Cords for applications requiring high flexibility	450 V or less / 750 V or less	N
KC 60332-1 : 2015	Tests on electric cables under fire conditions - Part 1 : Test on a single vertical insulated wire or cable	height : (1 200 ± 250) ㎜ width : (300 ± 25) ㎜ depth : (450 ± 25) ㎜	N
KC 60502-1 : 2015	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV(Um = 36 kV) - Part 1 : Cables for rated voltages of 1 kV (Um = 1.2 kV) and 3 kV (Um = 3.6 kV)	3.6 kV or less	N
KC 60811-1-1 : 2015	Common test methods for insulating and sheathing materials of electric cables and optical cables - Part 1 - 1 : Methods for general application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties	0.01 ㎜ or less	N
KC 60754-1 : 2015	Hand - held motor-operated electric tools - Safety - Part 1 : General requirements	halogen acid : 5 mg/g or less	N
KC 60754-2 : 2015	Test on gases evolved during combustion of materials from cables Part 2 : Determination of acidity (by pH measurement) and conductivity	accuracy : ± 0.1 ㎎, pH : ± 0.02 conductivity: 10^{-2} ㎲/㎜	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KC 60799 : 2015	Electrical accessories - Cord sets and interconnection cord sets	16 A or less	N
KC 60811-1-2 : 2015	Common test methods for insulating and sheathing materials of electric cables - Part 1 : Methods for general application - Section Two: Thermal ageing methods	air pressure : (0.55 ± 0.02) ㎫ oxygen pressure : (2.1 ± 0.07) ㎫	N
KC 60811-1-4 : 2015	Common test methods for insulating and sheathing materials of electric cables - Part 1 : Methods for general application - Section Four: Tests at low temperature	-40 ℃ ~ room temperature	N
KC 60811-2-1 : 2015	Common test methods for insulating and sheathing materials of electric and optical cables - Part 2 - 1 : Methods specific to elastomeric compounds - Ozone resistance, hot set and mineral oil immersion tests	mandrel diameter : (4 ~ 10) d ozone ± 0.1 ppm	N
KC 60811-3-1 : 2015	Common test methods for insulating and sheathing materials of electric cables - Part 3 : Methods specific to PVC compounds - Section One: Pressure test at high temperature - Tests for resistance to cracking	mandrel diameter : (2 ~ 40) ㎜	N
KC 60811-3-2 : 2015	Common test methods for insulating and sheathing materials of electric and optical cables - Part 3 - 2 : Methods specific to PVC compounds-Loss of mass test, thermal stability test	temperature : (200 ± 0.5) ℃ division : 0.1 ℃	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KC 60811-4-1 : 2015	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 4 - 1 : Methods specific to polyethylene and polypropylene compounds - Resistance to environmental stress cracking - Measurement of the melt flow index - Carbon black and/or mineral filler content measurement in polyethylene by direct combustion - Measurement of carbon black content by thermogravimetric analysis (TGA) - Assessment of carbon black dispersion in polyethylene using a microscope	165 ℃ ~ 170 ℃ 50 kN ~ 200 kN	N
KC 60811-5-1 : 2015	Common test methods for insulating and sheathing materials of electric and optical cables - Part 5 - 1 : Methods specific to filling compounds - Drop point - Separation of oil - Lower temperature brittleness - Total acid number - Absence of corrosive components - Permittivity at 23 ℃ - DC resistivity at 23 ℃ and 100 ℃	temperature : (23 ± 2) ℃ (100 ± 3) ℃	N
K 60885-1 : 2007	Electrical test methods for electri cables Part 1 : Electrical tests for cables, cords and wires for voltages up to and including 450 V / 750 V	450 V or less / 750 V or less	N
KC 62821-1 : 2016	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V / 750V or less	N
KC 62821-2 : 2016	Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V / 750V or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KC 62821-3 : 2016	Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 3 : Flexible cables(cords) (Except) Annex A Table A.1 8.2	450 V / 750V or less	N
KS C 3101 : 2003	Annealed copper wires for electrical purposes	conductor diameter : 12.0 ㎜ or less	N
KS C 3102 : 1998	Hard - drawn copper wires for electrical purposes	conductor diameter : 12.0 ㎜ or less	N
KS C 3103 : 2003	Annealed copper stranded wires for electrical purposes	nominal area : 2 000 ㎟ or less	N
KS C 3104 : 1996	Hard - drawn copper stranded conductors	nominal area : 500 ㎟ or less	N
KS C 3105 : 2014	Rectangular copper wires for electrical purposes	width : 9.5 ㎜ thickness : 10.0 ㎜ or less	N
KS C 3106 : 1978	Annealed copper wires for winding of eletric apparatus	conductor diameter : 3.2 ㎜ or less	N
KS C 3107 : 2003	Enamelled winding wires	conductor diameter : 3.2 ㎜ or less	N
KS C 3111 : 2003	Hard - drawn aluminium wires for electric purposes	finish outside diameter : 5.0 ㎜ or less	N
KS C 3112 : 2003	Hard - drawn aluminium stranded conductors	nominal area : 1 500 ㎟ or less	N
KS C 3113 : 1986	Aluminium stranede coductors steel reinforced	nominal area : 610 ㎟ or less	N
KS C 3115 : 1980	Tin coated piano wire for armature binding	line diameter : 2.60 ㎜ or less	N
KS C 3117 : 2014	Deadend clamp for aluminium	ACSR: 160 ㎟ or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C 3120 : 2014	Tin coated annealed copper wires	conductor diameter : 12.0 ㎜ or less	N
KS C 3123 : 1974	Glass - fiber - covered round copper wires	conductor diameter : 3.20 ㎜ or less	N
KS C 3125 : 1974	Double glass - fiber - covered rectangular copper wires	conductor thickness 4.5 ㎜ or less	N
KS C 3133 : 1979	Copper wire rods for electrical purposes	conductor diameter 25.0 ㎜ or less	N
KS C 3134 : 2008	Contact conductors with insulating covers (Exception) 5.8 Running test	d.c. 750 V or less, a.c. 600 V or less, rated current 2 000 A or less	N
KS C 3138 : 1989	ACSR Outdoor cross - linked polyethylene insulated wires for 6.6 KV	nominal area : 95 ㎟ or less	N
KS C 3139 : 1988	High Outdoor cross - linked polyethylene insulated wires for 6.6 KV	nominal area : 150 ㎟ or less	N
KS C 3306 : 2002	Figure 8 type drop wires	conductor diameter : 1.0 ㎜, 1.2 ㎜	N
KS C 3307 : 1993	Flat type drop wires	conductor diameter : 1.20 ㎜	N
KS C 3308 : 1988	Insulated wires for neon tube	15 kV or less	N
KS C 3311 : 2012	Low - Voltage cables for automobile	nominal area : 100 ㎟ or less	N
KS C 3312 : 1992	Fiber or paper covered winding wires	conductor diameter : 6.0 ㎜ or less	N
KS C 3313 : 2015	Outdoor weather proof polyvinyl chloride insulated wires (OW)	600 V or less	N
KS C 3315 : 2015	Polyvinyl chloride insulated drop service wires(DV)	600 V or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C 3338 : 2005	Polyester nylon copper wire	conductor diameter : 3.2 ㎜ or less	N
KS C 3339 : 2002	CATV aluminium pipe coaxial cables	a.c. 65 V, current 15 A	N
KS C 3342 : 2017	Local area network cable	conductor diameter : 0.8 ㎜	N
KS C 3341 : 2015	Halogen free flame retardant poly - olefin power control, cable & insulation wire	450 V / 750 V or less	N
KS C 3342 : 2003	Local area network cable	frequency : 250 ㎒ or less	N
KS C 3401 : 1990	1 000 V Grade insulated wires for fluorescent lamps	1 000 V	N
KS C 3403 : 1990	High - voltage resistance cables for automobile	resistance : 36 ㎏Ω or less	N
KS C 3603 : 2016	Polyethylene insulated polyvinyl chloride sheathed pair cable for telephone	core wire diameter : 0.9 ㎜ or less	N
KS C 3604 : 2002	L.F Cables and wires with P.V.C insulation and P.V.C sheath for telephone	core 112 or less	N
KS C 3606 : 2003	Paper — insulated — lead sheathed star cable for telephone	nominal pair: 2 400 or less	N
KS C 3608 : 1981	Paper — insulated — lead sheathed pair cable for telephone	2 121 pair or less	N
KS C 3610 : 2016	Radio - frequency coaxial cables	50 Ω and 75 Ω	N
KS C 3612 : 2008	High tension cables for X — ray apparatus	voltage : 150 kV or less	N
KS C 3617 : 2016	Coaxial cables for television receivers	frequency : 1800 ㎒ or less	N
KS C 3618 : 1983	Polyethylene insulated metal sheathed cables for telephone	core wire diameter : 0.9 ㎜ or less	N
KS C 3804 : 2002	Low voltage pin type insulators	voltage : 20 kV adhension : 35 ㎎/㎝ or more	N
KS C 3805 : 1965	Low - voltage insulator knobs	length : 75 ㎜ or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C 3806 : 2002	Low voltage shackle type insulators	withstand voltage : 15 000 V, tensile load : 9.8 kN, adhension : 45 mg/cm or more	N
KS C 3807 : 1980	High - voltage porcelain tubes	voltage : 40 kV, 25 kV	N
KS C 3809 : 2001	High - voltage pin type insulators	breakdown voltage : 90 kV or more	N
KS C 3814 : 1976	Neon insulators	withstand voltage : 30 kV or less	N
KS C 3816 : 1980	Strain type insulators	withstand voltage : 11 kV or less	N
KS C 3817 : 2003	Clevis type procelain long rod insulators	voltage : 385 kV or less tensile breakdown load : 117 600 N or more	N
KS C 3819 : 2003	Indoor post insulators	3.3 kV ~ 33 kV	N
KS C 3821 : 2003	180 mm clevis type suspension insulators	withstand voltage : 75 kV breakdown load : 73 500 N or more	N
KS C 3827 : 2003	Normal type and anti-pollution type suspension insulators	breakdown voltage : 140 kV or more breakdown load : 330 kN or more	N
KS C 3829 : 1990	Insulated wires for cubicle type unit substation for 6.6 KV receiving	nominal voltage : 6.6 kV	N
KS C 3831 : 2003	Line post insulators	22.9 kV or less	N
KS C 3832 : 2003	Station post insulators	nominal voltage : 6.6 kV	N
KS C 3833 : 2006	6.6 kV strain insulators	withstand voltage : 100 kV or more breakdown load : 39 200 N or more	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C 3834 : 2006	Pin type insulators for feeder	withstand voltage : 100 kV or more breakdown load : 7 350 N or more	N
KS C 3836 : 2014	Ball and socket type suspension insulator	withstand voltage : 130 kV or more breakdown load : 68 800 N or more	N
KS C 4610 : 2011	Lightning arresters for 6.6 kV cubicle type unit substation	withstand voltage : 60 kV or more	N
KS C 8110 : 1992	Photoelectric controls for public lighting	rated voltage : 110 V and 220 V	N
KS C IEC 60227-1 : 2014	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V or less / 750 V or less	N
KS C IEC 60227-2 : 2016	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V or less / 750 V or less	N
KS C IEC 60227-3 : 2005	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 3 : Non-sheathed cables for fixed wiring	450 V or less / 750 V or less	N
KS C IEC 60227-4 : 2005	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 4 : Sheathed cables for fixed wiring	450 V or less / 750 V or less	N
KS C IEC 60227-5 : 2016	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 5 : Flexible cables(cords)	450 V or less / 750 V or less	N
KS C IEC 60227-6 : 2005	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 6 : Lift cables for flexible connections	450 V or less / 750 V or less	N
KS C IEC 60227-7 : 2015	Polyvinyl chloride insulated cables of rated voltages up to and including 450 V / 750 V - Part 7 : Flexible cables screened and unscreened with two or more conductors	450 V or less / 750 V or less	N
KS C IEC 60228 : 2015	Conductors of insulated cables	2 500 ㎟ or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60245-1 : 2014	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V or less / 750 V or less	N
KS C IEC 60245-2 : 2006	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V or less / 750 V or less	N
KS C IEC 60245-3 : 2013	Rubber insulated cables — Rated voltages up to and including 450 V / 750 V — Part 3 : Heat resistant silicone insulated cables	450 V or less / 750 V or less	N
KS C IEC 60245-4 : 2014	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 4 : Cord and flexible cables	450 V or less / 750 V or less	N
KS C IEC 60245-5 : 2013	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 5 : Lift cables	450 V or less / 750 V or less	N
KS C IEC 60245-6 : 2016	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 6 : Arc welding electrode cables	450 V or less / 750 V or less	N
KS C IEC 60245-7 : 2016	Rubber insulated cables - Rated voltages up to and including 450 V / 750 V - Part 7 : Heat resistant ethylene - vinyl acetate rubber insulated cables	450 V or less / 750 V or less	N
KS C IEC 60245-8 : 2014	Rubber insulated cables of rated voltages up to and including 450 V / 750 V - Part 8 : Cords for applications requiring high flexibility	450 V or less / 750 V or less	N
KS C IEC 60317-0-1 : 2015	Specifications for particular types of winding wires - Part 0 - 1 : General requirements - Enamelled round copper wire	nominal diameter : 5.0 ㎜ or less	N
KS C IEC 60317-8 : 2004	Specifications for Particular types of winding wires - Part 8 : Polyesterimide enamelled round copper wire, class 180	temperature : 200 ℃	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60332-1-1 : 2014	Tests on electric and optical fibre cables under fire conditions - Part 1 - 1 : Test for vertical flame propagation for a single insulated wire or cable - Apparatus	height : (1 200 ± 250) mm width : (300 ± 25) mm depth : (450 ± 25) mm	N
KS C IEC 60332-1-2 : 2014	Tests on electric and optical fibre cables under fire conditions - Part 1 - 2 : Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre - mixed flame	height : (1 200 ± 250) mm width : (300 ± 25) mm depth : (450 ± 25) mm	N
KS C IEC 60332-1-3 : 2014	Tests on electric and optical fibre cables under fire conditions - Part 1 - 3 : Test for vertical flame propagation for a single insulated wire or cable - Procedure for determination of flaming droplets / particles	height : (1 200 ± 250) mm width : (300 ± 25) mm depth : (450 ± 25) mm	N
KS C IEC 60502-1 : 2013	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV(Um = 36 kV) – Part 1 : Cables for rated voltages of 1 kV(Um = 1.2 kV) and 3 kV(Um = 3.6 kV)	3.6 kV or less	N
KS C IEC 60502-2 : 2016	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um=1.2 kV) up to 30 kV(Um=36 kV) – Part 2 : Cables for rated voltages from 6 kV (Um=7.2 kV) up to 30 kV(Um=36 kV) (Exception) 16.3 Partial discharge test 16.4 Voltage test 17.9 Voltage test for 4 h 18. Type tests, electrical 19.14.2 Test for vertical flame spread of vertically - mounted bunched wires or cables 19.22 Water penetration test 19.23 Measurement of smoke density 20. Electrical tests after installation	36 kV or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60684-2 : 2014	Flexible insulating sleeving - Part 2 : Methods of test	(590 ~ 610) ℃	N
KS C IEC 60754-1 : 2003	Test on gases evolved during combustion of materials from cables — Part 1 : Determination of the amount of halogen acid gas	halogen acid : 5 mg/g or less	N
KS C IEC 60754-2 : 2003	Test on gases evolved during combustion of electric cables — Part 2 : Determination of degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity	accuracy : ± 0.1 mg, pH : ±0.02 conductivity : 10^{-2} μS/mm	N
KS C IEC 60799 : 2002	Electrical accessories - Cord sets and interconnection cord sets	16 A or less	N
KS C IEC 60811-1-1 : 2002	Common test methods for insulating and sheathing materials of electric cables — Part 1 : Methods for general application — Section 1 : Measurement of thickness and overall dimensions — Tests for determining the mechanical properties	0.01 mm	N
KS C IEC 60811-201 : 2014	Electric and optical fibre cables - Test methods for non - metallic materials - Part 201 : General tests - Measurement of insulation thickness	0.01 mm	N
KS C IEC 60811-202 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202 : General tests - Measurement of thickness of non - metallic sheath	0.01 mm	N
KS C IEC 60811-203 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 203 : General tests - Measurement of overall dimensions	25 mm	N
KS C IEC 60811-501 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501 : Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds	(23 ± 5) ℃	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60811-1-2 : 2002	Common test methods for insulating and sheathing materials of electric cables — Part 1 : Methods for general application — Section 2 : Thermal ageing methods	Air pressure : (0.55 ± 0.02) ㎫ Oxygen pressure : (2.1 ± 0.07) ㎫	N
KS C IEC 60811-401 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 401 : Miscellaneous tests - Thermal ageing methods - Ageing in an air oven	Less than 2 % of the volume of the oven	N
KS C IEC 60811-412 : 2016	Electric and optical fibre cables - Test methods for non-metallic materials - Part 412 : Miscellaneous tests - Thermal ageing methods - Ageing in an air bomb	Air pressure : (0.55 ± 0.02) ㎫	N
KS C IEC 60811-1-3 : 2002	Common test methods for insulating and sheathing materials of electric and optical cables - Part 1 - 3 : General application - Methods for determining the density - Water absorption tests - Shrinkage test	Weight : 0.1 mg Voltage : d.c. 2.5 kV a.c. 4 kV	N
KS C IEC 60811-606 : 2015	Electric and optical fibre cables - Test methods for non-metallic materials - Part 606 : Physical tests - Methods for determining the density	(23.0 ± 0.1) ℃	N
KS C IEC 60811-1-4 : 2002	Common test methods for insulating and sheathing materials of electric cables - Part 1 : Methods for general application - Section Four : Test at low temperature	-40 ℃ ~ ordinary temperature	N
KS C IEC 60811-504 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 504 : Mechanical tests - Bending tests at low temperature for insulation and sheaths	Mandrel diameter : (4 ~ 5)times the diameter of the test piece	N
KS C IEC 60811-505 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 505 : Mechanical tests - Elongation at low temperature for insulations and sheaths	Ambient temperature	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60811-506 : 2015	Electric and optical fibre cables - Test methods for non-metallic materials - Part 506 : Mechanical tests - Impact test at low temperature for insulations and sheaths	Impact height : 100 mm	N
KS C IEC 60811-2-1 : 2006	Common test methods for insulating and sheathing materials of electric and optical cables - Part 2-1 : Methods specific to elastomeric compounds - Ozone resistance, hot set and mineral oil immersion tests	Mandrel diameter : (4 ~ 10) d Ozone ± 0.1 ppm	N
KS C IEC 60811-403 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 403 : Miscellaneous tests - Ozone resistance test on cross-linked compounds	Mandrel diameter : (4 ± 0.01) ㎜ (5 ± 0.01) ㎜ (6 ± 0.01) ㎜ (8 ± 0.01) ㎜ (10 ± 0.01) ㎜	N
KS C IEC 60811-404 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 404 : Miscellaneous tests - Mineral oil immersion tests for sheaths	(16 ~ 24) h	N
KS C IEC 60811-507 : 2015	Electric and optical fibre cables - Test methods for non-metallic materials - Part 507 : Mechanical tests - Hot set test for cross - linked materials	Test temperature : (200 ± 3) ℃ Tensile strength : (20 ± 0.5) N/㎠	N
KS C IEC 60811-3-1 : 2002	Common test methods for insulating and sheathing materials of electric cables - Part 3 : Methods specific to PVC compounds - Section One : Pressure test at high temperature - Tests for resistance to cracking	Mandrel diameter : (2 ~ 40) ㎜	N
KS C IEC 60811-508 : 2014	Electric and optical fibre cables - Test methods for non-metallic materials - Part 508 : Mechanical tests - Pressure test at high temperature for insulation and sheaths	Blade edge : (0.7±0.01) mm	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60811-509 : 2015	Electric and optical fibre cables - Test methods for non-metallic materials - Part 509 : Mechanical tests - Test for resistance of insulations and sheaths to cracking (heat shock test)	Test temperature : (150 ± 3) ℃ Test duration : 1 h	N
KS C IEC 60811-3-2 : 2002	Common test methods for insulating and sheathing materials of electric cables - Part 3 : Methods specific to PVC compounds - Section Two : Loss of mass test - Thermal stability test	Test temperature : (200 ± 0.5) ℃	N
KS C IEC 60811-405 : 2016	Electric and optical fibre cables - Test methods for non-metallic materials - Part 405 : Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths	(200.0 ± 0.5) ℃	N
KS C IEC 60811-409 : 2015	Electric and optical fibre cables - Test methods for non-metallic materials - Part 409 : Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths	An analytical balance with a sensitivity of 0.1 mg	N
KS C IEC 60811-4-1 : 2006	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 4 - 1 : Methods specific to polyethylene and polypropylene compounds - Resistance to environmental stress cracking - Measurement of the melt flow index - Carbon black and/or mineral filler content measurement in polyethylene by direct combustion - Measurement of carbon black content by thermogravimetric analysis (TGA) - Assessment of carbon black dispersion in polyethylene using a microscope	temperature : (165 ~ 170) ℃ Power : (50 ~ 200) kN	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60811-510 : 2016	Electric and optical fibre cables - Test methods for non - metallic materials - Part 510 : Mechanical tests - Methods specific to polyethylene and polypropylene compounds - Wrapping test after thermal ageing in air	Test temperature : (100 ± 2) ℃ Test duration : 14days	N
KS C IEC 60811-5-1 : 2006	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 5 - 1 : Methods specific to filling compounds - Drop - point - Separation of oil - Lower temperature brittleness - Total acid number - Absence of corrosive components - Permittivity at 23 ℃ - DC resistivity at 23 ℃ and 100 ℃	temperature : (23 ± 2) ℃ (100 ± 3) ℃	N
IEC 60060-1 Ed. 3.0 b : 2010	High - voltage test techniques. Part 1 : General definitions and test requirements	a.c. 24 kV or less	N
IEC 60060-2 Ed. 3.0 b : 2010	High voltage test techniques - Part 2 : Measuring systems	a.c. 24 kV or less	N
IEC 60096-0-1 Ed. 3.0 b : 2012	Radio frequency cables - Part 0 - 1 : Guide to the design of detail specification - Coaxial cables	frequency : 10 000 ㎒ or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0019 : 2017	22.9 kV Concentric Neutral Type Crosslinked Polyethylene Insulated Halogen free Polyolefin Jacketed Water - proof Power Cables (FR CNCO-W) 8.1 Visual Inspection 8.2 Construction test 8.3 Electrical Characteristic Test (8.3.1 Conductor Resistance, 8.3.2 Insulation Resistance) 8.4 Physical Characteristic Test (8.4.3 Compound Dropping Test, 8.4.4 Tensile Strength and Elongation Test, 8.4.5 Hot Creep Test, 8.4.6 Heat deformation, 8.4.7 Cold Resistance Test, 8.4.9 Oil Resistance Test, 8.4.10 Oxygen Index, 8.4.11 Determination of the halogen acid gas content, 8.4.12 Determination of acidity (by pH measurement) and conductivity, 8.4.14 Insulation Shield Removability Test, 8.4.15 Physical Tests for Semi - conducting Material Intended for Extrusion, 8.4.16 Insulation, Contaminant, Void, Protrusion of Semi - conducting Screens, 8.4.17 Internal Irregularity Test of Conductor Shield, 8.4.20 Degree of Cross - linking, 8.4.21 Shrinkback, 8.4.22 Ionic Impurities of Semi - conducting screens, 8.4.23 Conductor Shield Volume Resistivity, 8.4.24 Insulation Shield Volume Resistivity) 8.5 High Voltage Time Test (HVTT) (8.5.2.5 Resistance Stability Test, 8.5.3.4 Observation of Trees)	Cross - sectional Area : 60 ㎟, 200 ㎟, 325 ㎟, 600 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0025 : 2017	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Cables (TR CNCE-W) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test (7.3.1.1 Conductor Resistance, 7.3.1.2 Insulation Resistance) 7.4 Physical Characteristic Test (7.4.1.3 Compound Dropping Test, 7.4.2 Insulation and Semi - conducting Screen layers Test, 7.4.3 Volume Resistivity of Semi - conducting Screens, 7.4.4 Tensile Strength and Elongation Test, 7.4.5 Physical and Aging Tests, 7.4.6 Insulation Shield Removability Test, 7.4.7 Anti - environmental Tests , 7.4.8 DSC, 7.4.9 Ionic Impurities of Semi - conducting screens) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test (AWTT) (7.5.2.6 Resistance Stability Test, 7.5.3.5 Observation of Trees	Cross - sectional Area : 60 ㎟, 200 ㎟, 325 ㎟, 600 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0026 : 2017	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Aluminium Cables (TR CNCE - W / AL) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test (7.3.1.1 Conductor Resistance, 7.3.1.2 Insulation Resistance) 7.4 Physical Characteristic Test (7.4.1 Compound Dropping Test, 7.4.2 Insulation and Semi - conducting Screen layers Test, 7.4.3 Volume Resistivity of Semi - conducting Screens, 7.4.4 Tensile Strength and Elongation Test, 7.4.5 Physical and Aging Tests, 7.4.6 Insulation Shield Removability Test, 7.4.7 Anti - environmental Tests , 7.4.8 DSC, 7.4.9 Ionic Impurities of Semi - conducting screens) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test (AWTT) (7.5.2.6 Resistance Stability Test, 7.5.3.5 Observation of Trees)	Cross - sectional Area : 95 ㎟, 240 ㎟, 400 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
GS-6145-0063 : 2007	22.9 kV FR - CO / W(Water-proof type power cable) 5.1 Test Method (A. Visual Inspection, B. Construction test, C. Insulation Resistance, F. Conductor Resistance, K. Tensile Strength and Elongation Test, L. Heat deformation, M. Cold Resistance Test, O. Oxygen Index, P. Determination of acidity(by pH measurement) and conductivity, Q. Determination of the halogen acid gas content, S. Oil Resistance Test, V. Contaminant and Void)	Cross - sectional Area: 600 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
GS-6145-0068 : 2014	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Halogen free Polyolefin Jacketed Water - proof Power Aluminium Cables (FR CNCO - W / AL) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test (7.3.1.1 Conductor Resistance, 7.3.1.2 Insulation Resistance) 7.4 Physical Characteristic Test (7.4.1 Compound Dropping Test, 7.4.2 Insulation and Semi - conducting Screen layers Test, 7.4.3 Volume Resistivity of Semi - conducting Screens, 7.4.4 Tensile Strength and Elongation Test, 7.4.5 Physical and Aging Tests, 7.4.6 Insulation Shield Removability Test, 7.4.8 Oxygen Index, 7.4.9 Determination of the halogen acid gas content, 7.4.10 Determination of acidity(by pH measurement) and conductivity, 7.4.12 Ionic Impurities of Semi - conducting screens) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test (AWTT) (7.5.2.6 Resistance Stability Test, 7.5.3.5 Observation of Trees)	Cross - sectional Area : 95 ㎟, 240 ㎟, 400 ㎟	N
KC 10028 : 2016	Low voltage rubber insulated cables of rated voltages up to and including 450 V / 750 V - Multicore cables with crosslinked silicone rubber insulation	450 V / 750 V or less	N
KS C IEC 62821-1 : 2014	Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V / 750 V or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 62821-2 : 2014	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V / 750 V or less	N
KS C IEC 62821-3 : 2014	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 3 : Flexible cables(cords) (Exception) Annex A Table A.1 8.2 Smoke emission Test	450 V / 750 V or less	N
IEC 62821-1 : 2015	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 1 : General requirements	450 V / 750 V or less	N
IEC 62821-2 : 2015	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 2 : Test methods	450 V / 750 V or less	N
IEC 62821-3 : 2015	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 3 : Flexible cables(cords) (Exception) Annex A Table A.1 8.2 Smoke emission Test	450 V / 750 V or less	N
ES-5340-0015 : 2014	Binding wires for copper conductors	(2.0 ~ 5.0) ㎜	N
ES-5340-0016 : 2011	Binding Wires for Aluminium Conductors	(4.0 ~ 5.0) ㎜	N
ES-5340-0017 : 2009	Binding Wires for Insulated Wires	(1.6 ~ 2.0) ㎜	N
ES-6145-0001 : 2009	Galvanized Steel Wire Strands	(2.0 ~ 3.5) ㎜	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0002 : 2014	Copper Wires for Electrical Purpose	(2.0 ~ 5.0) ㎜	N
ES-6145-0003 : 2010	Concentric - Lay - Stranded Copper - Clad Steel	(38 ~ 240) ㎟	N
ES-6145-0005 : 2011	Aluminium Stranded Conductors Steel Reinforced (except) 4.3.1 table 4 Chemical composition, 4.3.3 Block passing test, 4.3.4 Torsion test	(32 ~ 520) ㎟	N
ES-6145-0006 : 2012	ACSR / AW - OC for 22.9 kV-Y (except) 4.3.3.(2) Spark test	(32 ~ 240) ㎟	N
ES-6145-0007 : 2009	ACSR Outdoor Cross - linked Polyethylene Insulated Wires for 6.6 kV (except) 5. table 2 Spark test	(32 ~ 95) ㎟	N
ES-6145-0012 : 2014	Concentric - Lay - Stranded Aluminium Clad Steel (except) 4.3.1 table 4 Salt spray, 4.3.11 Block passing test, 4.3.12 Torsion test	(55 ~ 200) ㎟	N
ES-6145-0013 : 2014	Out Door Weather Proof Polyvinyl Chloride Insulated Wires	(2.0 ~ 3.2) ㎜	N
ES-6145-0014 : 2014	Polyvinyl Chloride Insulated Drop Wires (except) 3.3 table 2 Fire - retardant test	(1.6 ~ 3.2) ㎜	N
ES-6145-0015 : 2014	450 V / 750 V Grade Single - core Polyvinyl Chloride Insulated Wire for general purposes	(1.5 ~ 120) ㎟	N
ES-6145-0017 : 2012	22.9 kV and 6.6 kV Drop Wires for pole Transformers	5.0 ㎜, 5.5 ㎟	N
ES-6145-0018 : 2013	Polyvinyl Chloride Insulated and Sheathed Control Cable (except) 5.2.5.(2)(b) Flame - spread test on bunched cables	(1.5 ~ 150) ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0020 : 2014	Concentric - Lay - Stranded Aluminum Conductors Aluminum - Clad Steel Reinforced (except) 4.3.11 Block passing test, 4.3.12 Torsion test	(32 ~ 160) ㎟	N
ES-6145-0021 : 2016	ACSR / AW - TR / OC (except) 5.3.17 AC breakdown voltage test, 5.3.3(2) Spark test	(58 ~ 240) ㎟	N
ES-6145-0022 : 2014	OC - W Cable (except) 5.1.4 Deposition test, 5.1.5 Corrosion resistance test, 5.1.14 AC breakdown voltage test	(38 ~ 150) ㎟	N
ES-6145-0024 : 2014	TACSR : Thermal - resistant Aluminum - alloy Conductors Sreel Reinforced (except) 4.3.1 table 5 Chemical composition, 4.3.4 Block passing test, 4.3.5 Torsion test	(240 ~ 480) ㎟	N
ES-6145-0028 : 2018	Testing Methods for 22.9 ㎸ Power Cables 3.1 Visual inspection 3.2 Construction test 3.3.1 Conductor resistance, insulation resistance, capacitance 3.4.2 Insulation and semi - conducting screens test, 3.4.3 Volume resistivity of semi - conducting screens, 3.4.4 Tensile strength and elongation test, 3.4.5 Physical aging test, 3.4.6 Insulation shield removability test, 3.4.7 Environmental resistance test, 3.4.8 Characteristic test of sheath, 3.4.9 Ionic impurities of semi - conducting screens 3.5.1.(6) Resistance stability test	cross section area (㎟) 60, 200, 325, 600 (Cu) 95, 240, 400 (Al)	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0029 : 2014	HSTACIR / AW ; High - Strength Super Thermal - Resistant Aluminum - Alloy Conductors, Aluminium - Clad Invar - Reinforced (except) 4.3.11 Block passing test, 4.3.12 Torsion test	(240 ~ 480) ㎟	N
GS-6145-0028 : 2003	Aerial Bundled Cable of Low Voltage (except) 7.1 table 7.4 - 2 Spark test	(35 ~ 150) ㎟	N
GS-6145-0072 : 2013	High - tension Thermal-resistant Aluminum Stranded Conductors Aluminum - Clad Steel Reinforced (except) 4.3.11 Block passing test, 4.3.12 Torsion test	(240 ~ 480) ㎟	N
GS-6145-0076 : 2012	(0.6 / 1) kV XLPE Insulated PVC Jacketed Water - proof Aluminium Power Cables	(25 ~ 300) ㎟	N
GS-6145-0078 : 2010	Aerial Spacer Cable for 22.9 kV (except) 7.4.2 Spark	(35 ~ 240) ㎟	N
GS-6145-0080 : 2016	ACSR / AW polyvinyl chloride insulated outdoor weather - proof wires (except) 5.3.3.(2) Spark test	(35 ~ 185) ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
GS-6145-0097 : 2018	22.9 ㎸ Concentric Neutral Type Eco - friendly Polypropylene Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Aluminium Cables 7.1 Visual inspection 7.2 Construction test 7.3 Electrical characteristic test 7.4.2 Insulation and semi - conducting screens test, 7.4.3 Volume resistivity of semi - conducting screens, 7.4.4 Tensile strength and elongation test, 7.4.5 Physical aging test, 7.4.6 Insulation shield removability test, 7.4.7 Environmental resistance test, 7.4.8 Characteristic test of sheath, 7.4.9 Ionic impurities of semi - conducting screens, 7.4.10 Water absorption test, 7.4.11 Differential scanning calorimetry 7.5.1.1.(5) Resistance stability test 7.5.2.1.(5) Resistance stability test	cross section area (㎟) 95, 240, 400	N
IEC 60092-350 : 2014	Electrical installations in ships - Part 350 : General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications (except) 5.2.3.7 Spark test, 5.2.4 Partial discharge test, 7.7 High voltage sequence test, 8.17.2 Flame - spread test on bunched cables, 8.17.3 Smoke emission test, 8.17.7 Fire - resistance test	Rated voltage up to (1.8 / 3) ㎸	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
IEC 60092-353 : 2016	Electrical installations in ships - Part 353 : Power cables for rated voltages 1 kV and 3 kV (except) Table 4. Fire - retardant tests : IEC 60332-3-22, Table 6. Smoke emission test according to IEC 61034-2	Rated voltage up to (1.8 / 3) kV	N
IEC 60092-354 Ed.3.0 : 2014	Electrical installations in ships - Part 354 : Single - and three - core power cables with extruded solid insulation for rated voltages 6 kV(Um = 7.2 kV) up to 30 kV(Um = 36 kV) (except) Table 3 Voltage test, Voltage test on sheath, Insulation resistance test, Partial discharge test, High voltage sequence test, Insulation resistance measurement at maximum rated temperature, Increase in a.c. capacitance after immersion in water, High - voltage test for 4 h, Flame - spread tests : IEC 60332-3-22	Rated voltage 6 kV ~ 30 kV	N
IEC 60092-360 : 2014	Electrical installations in ships - Part 360 : Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables	Max. conductor temp. up to 95 ℃	N
IEC 60092-376 Ed.2.0 : 2003	Electrical installations in ships - Part 376 : Cables for control and instrumentation circuits 150/250 V (300 V) (except) 17.3 g) Bunched cable flame spread test 17.3 h) Smoke (light) transmittance of completed cable 17.3 i) Test for fire resistance (IEC 60331-21)	Rated voltage 150 V / 250 V (300 V)	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60092-350 : 2001	Electrical installations in ships - Part 350 : General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications (except) 12.14 Fire - retardant test	Rated voltage up to (8.7 / 15) ㎸	N
KS C IEC 60092-353 : 2003	Electrical installations in ships - Part 353 : Power cables for rated voltages 1 ㎸ and 3 ㎸ (except) 4.2.4.g Smoke emission test, 4.2.4.h Fire - resistance test	Rated voltage up to 1.8/3 ㎸	N
KS C IEC 60092-354 : 2003	Electrical installations in ships — Part 354 : Single - and three - core power cables with extruded solid insulation for rated voltages 6 kV, 10 kV and 15 kV (except) 18.3.3, 18.3.5, 18.3.6, 18.3.7, 18.3.8	Rated voltage (3.6 / 6(7.2)) kV, (6 /10(12)) kV, (8.7 /15(17.5)) kV	N
KS C IEC 60092-376 : 2003	Electrical installations in ships — Part 376 : Shipboard multicore cables for control circuits	a.c. 250 V or d.c 250 V	N
ANSI/NEMA WC 70 : 2009 (ICEA S-95-658 : 2009)	Power Cables Rated 2 000 Volts or Less for the Distribbution of Electrical Energy (except) 7.3 Tray cable flame test, 7.6 Smoke generation test	Rated voltage up to 2 ㎸	N
ANSI/NEMA WC 71 : 2014 (ICEA S-96-659 : 2014)	Nonshielded Cables Rated 2001 - 5 000 V for Use in the Distribution of Electric Energy (except) 8.5 Tray cable flame test, 8.7 Smoke generation	Rated voltage up to 5 ㎸	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60309-1 Ed. 4.2 b : 2012	Plugs, socket-outlets and couplers for industrial purposes - Part 1 : General requirements	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N
IEC 60309-2 Ed. 4.2 b : 2012	Plugs, socket-outlets and couplers for industrial purposes - Part 2 : Dimensional interchangeability requirements for pin and contact-tube accessories	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N
IEC 60320-1 Ed. 3.0 : 2015	Appliance couplers for household and similar general purposes - Part 1 : General requirements	a.c. 250 V or less, 16 A or less	N
IEC 60320-2-1 Ed. 2.0 b : 2000	Appliance couplers for household and similar general purposes - Part 2 - 1 : Sewing machine couplers	a.c. 250 V or less, 2.5 A or less	N
IEC 60320-2-3 Ed. 1.1 b : 2005	Appliance couplers for household and similar general purposes - Part 2 - 3 : Appliance couplers with a degree of protection higher than IPX0	a.c. 250 V or less, 10 A or less	N
IEC 61439-6 Ed. 1.0 : 2012	Low - voltage switchgear and controlgear assemblies - Part 6: Busbar trunking systems (busways)	a.c. 600 V, 2 500 A or less	N
IEC 61439-3 Ed. 1.0 : 2012	Low - voltage switchgear and controlgear assemblies - Part 3 : Distribution boards intended to be operated by ordinary persons (DBO)	a.c. 600 V, 2 500 A or less	N
IEC 61439-4	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites (ACS)	a.c. 600 V, 2 500 A or less	N
IEC 60570 Ed. 4.1 b : 2017	Electrical supply track systems for luminaires	a.c. 440 V, 16 A or less	N
IEC 60730-1 Ed. 5.1 : 2015	Automatic electrical controls for household and similar use - Part 1 : General requirements	a.c. 690 V, 63 A or less	N
IEC 60730-2-10 Ed. 2.0 b : 2006	Automatic electrical controls for household and similar use - Part 2 - 10 : Particular requirements for motor - starting relays	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60730-2-11 Ed. 2.0 b : 2006	Automatic electrical controls for household and similar use - Part 2 - 11 : Particular requirements for energy regulators	a.c. 690 V, 63 A or less	N
IEC 60730-2-12 Ed. 3.0 : 2015	Automatic electrical controls for household and similar use - Part 2 - 12 : Particular requirements for electrically operated door locks	a.c. 690 V, 63 A or less	N
IEC 60730-2-13 Ed. 2.0 b : 2006	Automatic electrical controls for household and similar use - Part 2 - 13 : Particular requirements for humidity sensing controls	a.c. 690 V, 63 A or less	N
IEC 60730-2-14 Ed. 2.0 b : 2017	Automatic electrical controls for household and similar use - Part 2 - 14 : Particular requirements for electric actuators	a.c. 690 V, 63 A or less	N
IEC 60730-2-15 Ed. 3.0 b : 2017	Automatic electrical controls for household and similar use - Part 2 - 15 : Particular requirements for automatic electrical air flow, water flow and water level sensing controls	a.c. 690 V, 63 A or less	N
IEC 60730-2-17 Ed. 1.2 b : 2007	Automatic electrical controls for household and similar use - Part 2 - 17 : Particular requirements for electrically operated gas valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
IEC 60730-2-19 Ed. 1.2 b : 2007	Automatic electrical controls for household and similar use - Part 2 - 19 : Particular requirements for electrically operated oil valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
IEC 60730-2-22 Ed. 1.0 : 2014	Automatic electrical controls - Part 2 - 22 : Particular requirements for thermal motor protectors	a.c. 690 V, 63 A or less	N
IEC 60730-2-3 Ed. 2.0 b : 2006	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60730-2-5 Ed. 4.1 : 2017	Automatic electrical controls for household and similar use - Part 2 - 5 : Particular requirements for automatic electrical burner control systems	a.c. 690 V, 63 A or less	N
IEC 60730-2-6 Ed. 3.0 : 2015	Automatic electrical controls for household and similar use - Part 2 - 6 : Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	a.c. 690 V, 63 A or less	N
IEC 60730-2-7 Ed. 3.0 : 2015	Automatic electrical controls for household and similar use - Part 2 - 7 : Particular requirements for timers and time switches	a.c. 690 V, 63 A or less	N
IEC 60730-2-8 Ed. 2.2 : 2015	Automatic electrical controls for household and similar use - Part 2 - 8 : Particular requirements for electrically operated water valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
IEC 60730-2-9 Ed. 4.0 : 2015	Automatic electrical controls for household and similar use - Part 2 - 9 : Particular requirements for temperature sensing controls	a.c. 690 V, 63 A or less	N
IEC 60884-1 Ed. 3.2 b : 2013	Plugs and socket-outlets for household and similar purposes - Part 1 : General requirements	a.c. 440 V or less, 32 A or less	N
IEC 60884-2-1 Ed. 2.0 b : 2006	Plugs and socket-outlets for household and similar purposes - Part 2 - 1 : Particular requirements for fused plugs	a.c. 440 V or less, 32 A or less	N
IEC 60884-2-2 Ed. 2.0 b : 2006	Plugs and socket-outlets for household and similar purposes - Part 2 - 2 : Particular requirements for socket - outlets for appliances	a.c. 250 V or less, 16 A or less	N
IEC 60884-2-3 Ed. 2.0 b : 2006	Plugs and socket-outlets for household and similar purposes - Part 2 - 3 : Particular requirements for switched socket - outlets without interlock for fixed installations	a.c. 440 V or less, 32 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60884-2-4 Ed. 3.0 b : 2007	Plugs and socket - outlets for household and similar purposes - Part 2 - 4 : Particular requirements for plugs and socket - outlets for SELV	(a.c. / d.c.) 48 V or less, 16 A or less	N
IEC 60884-2-5 Ed. 2.0 b : 2017	Plugs and socket - outlets for household and similar purposes - Part 2 : Particular requirements for adaptors	a.c. 440 V or less, 32 A or less	N
IEC 60884-2-6 Ed. 1.0 b : 1997	Plugs and socket - outlets for household and similar purposes - Part 2 - 6 : Particular requirements for switched socket - outlets with interlock for fixed electrical installations	a.c. 440 V or less, 32 A or less	N
IEC 60947-5-1 : 2016	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices (exception) 8.3.4 Performance under conditional short - circuit current	AC 500 V or less AC 150 A or less	N
IEC 60981 Ed. 2.0 b : 2004	Extra heavy - duty electrical rigid steel conduits	diameter, pipe thickness 168.3 ㎜ or less	N
IEC 61180-1 Ed. 1.0 b : 1992	High - voltage test techniques for low voltage equipment - Part 1 : Definitions, test and procedure requirements	a.c. 24 kV or less	N
IEC 61180-2 Ed. 1.0 b : 1994	High - voltage test techniques for low - voltage equipment - Part 2 : Test equipment	a.c. 24 kV or less	N
IEC 61242 Ed. 1.0 b : 1995 / Amd2 : 2015	Electrical accessories - Cable reels for household and similar purposes	a.c. 440 V or less, 16 A or less	N
KC 60309-1 : 2015	Plugs, socket — outlets and couplers for industrial purposes — Part 1 : General requirements	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60309-2 : 2015	Plugs, socket – outlets and couplers for industrial purposes – Part 2 : Dimensional interchangeability requirements for pin and contact – tube accessories	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N
KC 60320-1 : 2015	Appliance couplers for household and similar general purposes - Part 1 : General requirements	a.c. 250 V or less, 16 A or less	N
KC 60320-2-1 : 2015	Appliance couplers for household and similar general purposes - Part 2 - 1 : Sewing machine couplers	a.c. 250 V or less, 2.5 A or less	N
K 60320-2-2 : 2006	Appliance couplers for household and similar general purposes – Part 2 - 2 : Interconnection couplers for household and similar equipment	a.c. 250 V or less, 16 A or less	N
KC 60320-2-3 : 2015	Appliance couplers for household and similar general purposes - Part 2 - 3 : Appliance couplers with a degree of protection higher than IPX0	a.c. 250 V or less, 10 A or less	N
K 60439-1 : 2002	Low - voltage switchgear and controlgear assemblies - Part 1 : Type-tested and partially type - tested assemblies	a.c. 600 V, 2 500 A or less	N
KC 60439-2 : 2015	Low - voltage switchgear and controlgear assemblies - Part 2 : Particular requirements for busbar trunking systems (busways)	a.c. 600 V, 2 500 A or less	N
KC 60439-3 : 2015	Low - voltage switchgear and controlgear assemblies - Part 3 : Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards	a.c. 600 V, 2 500 A or less	N
KC 60439-4 : 2015	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites (ACS)	a.c. 600 V, 2 500 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60439-5 : 2015	Low - voltage switchgear and controlgear assemblies - Part 5 : Particular requirements for assemblies for power distribution in public networks	a.c. 600 V, 2 500 A or less	N
KC 60529 : 2015	Degrees of protection provided by enclosures (IP Code)	IP 68 or less	N
KC 60570 : 2015	Electrical supply track systems for luminaires	150 V or less	N
KC 60730-1 : 2015	Automatic electrical controls - Part 1 : General requirements	a.c. 690 V, 63 A or less	N
KC 60730-2-1 : 2015	Automatic electrical controls for household and similar use. - Part 2 : Particular requirements for electrical controls for electrical household appliances	a.c. 690 V, 63 A or less	N
K 60730-2-2 : 2009	Automatic electrical controls for household and similar use — Part 2 — 2 : Particular requirements for thermal motor protectors	a.c. 690 V, 63 A or less	N
KC 60730-2-3 : 2015	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	a.c. 690 V, 63 A or less	N
KC 60730-2-4 : 2015	Automatic electrical controls for household and similar use - Part 2 - 4 : Particular requirements for thermal motor protectors for motor - compressors of hermetic and semi - hermetic type	a.c. 690 V, 63 A or less	N
KC 60730-2-5 : 2015	Automatic electrical controls for household and similar use - Part 2 - 5 : Particular requirements for automatic electrical burner control systems	a.c. 690 V, 63 A or less	N
K 60730-2-6 : 2009	Automatic electrical controls for household and similar use - Part 2 - 6 : Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60730-2-8 : 2015	Automatic electrical controls for household and similar use - Part 2 - 8 : Particular requirements for electrically operated water valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
K 60730-2-9 : 2011	Automatic electrical controls for household and similar use - Part 2 - 9 : Particular requirements for temperature sensing controls	a.c. 690 V, 63 A or less	N
K 60730-2-10 : 2009	Automatic electrical controls for household and similar use - Part 2 - 10 : Particular requirements for motor - starting relays	a.c. 690 V, 63 A or less	N
K 60730-2-11 : 2009	Automatic electrical controls for household and similar use - Part 2 - 11 : Particular requirements for energy regulators	a.c. 690 V, 63 A or less	N
KC 60730-2-12 : 2015	Automatic electrical controls for household and similar use - Part 2 - 12 : Particular requirements for electrically operated door locks	a.c. 690 V, 63 A or less	N
KC 60730-2-13 : 2015	Automatic electrical controls for household and similar use - Part 2 - 13 : Particular requirements for humidity sensing controls	a.c. 690 V, 63 A or less	N
KC 60730-2-14 : 2015	Automatic electrical controls for household and similar use - Part 2 - 14 : Particular requirements for electric actuators	a.c. 690 V, 63 A or less	N
KC 60730-2-15 : 2015	Automatic electrical controls for household and similar use - Part 2 - 15 : Particular requirements for automatic electrical air flow, water flow and water level sensing controls	a.c. 690 V, 63 A or less	N
KC 60730-2-16 : 2015	Automatic electrical controls for household and similar use - Part 2 - 16 : Particular requirements for automatic electrical water level controls of the float type for household and similar applications	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60730-2-17 : 2015	Automatic electrical controls for household and similar use - Part 2 - 17 : Particular requirements for electrically operated gas valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
K 60730-2-18 : 2003	Automatic electrical controls for household and similar use - Part 2 - 18 : Particular requirements for automatic electrical water andair flow sensing controls, including mechanical requirements	a.c. 690 V, 63 A or less	N
KC 60730-2-19 : 2015	Automatic electrical controls for household and similar use - Part 2 - 19 : Particular requirements for electrically operated oil valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
K 60730-2-7 : 2009	Automatic electrical controls for household and similar use — Part 2 : Particular requirements for timers and time switches	a.c. 440 V, 40 A or less	N
KC 60884-1 : 2015	Plugs and socket - outlets for household and similar purposes - Part 1 : General requirements	a.c. 440 V or less, 32 A or less	N
KC 60884-2-1 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 1 : Particular requirements for fused plugs	a.c. 440 V or less, 32 A or less	N
KC 60884-2-2 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 2 : Particular requirements for Socket - outlets for Appliances	a.c. 250 V or less, 16 A or less	N
KC 60884-2-3 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 3 : Particular requirements for Switched Socket - outlets without interlock for fixed installations	a.c. 440 V or less, 32 A or less	N
KC 60884-2-4 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 4 : Particular requirements for Plugs and Socket-outlets for SELV	(a.c. / d.c.) 48 V or less, 16 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60884-2-5 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 5 : Particular requirements for Adaptors	a.c. 440 V or less, 32 A or less	N
KC 60884-2-6 : 2015	Plugs and Socket - outlets for household and similar purposes - Part 2 - 6 : Particular requirements for switched socket - outlets with interlock for fixed electrical installations	a.c. 440 V or less, 32 A or less	N
K 60947-1 : 2011	Low - voltage switchgear and controlgear - Part 1 : General rules	a.c. 600 V, 600 A or less	N
KC 60309-1 : 2015	Plugs, socket - outlets and couplers for industrial purposes, - Part 1 : General requirements	(d.c. / a.c.) 690 V or less, 150 A, 500 Hz or less	N
KC 60309-2 : 2015	Plugs, socket - outlets and couplers for industrial purposes, - Part 2 : Dimensional interchangeability requirements for pin and contact - tube accessories	(d.c. / a.c.) 690 V or less, 150 A, 500 Hz or less	N
KC 60947-5-1 : 2016	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices (exception) 8.3.4 Performance under conditional short - circuit current	AC 500 V or less AC 150 A or less	N
KC 61242 : 2015	Electrical accessories - Cable reels for household and similar purposes	a.c. 250 V 16 A	N
KS C 8300 : 2008	Appliance couplers for domestic and similar use	a.c. 250 V or less 16 A or less	N
KS C 8305 : 2011	Plugs and socket - outlets for domestic and similar purposes	a.c. 440 V or less, 32 A or less	N
KS C 8319 : 2012	Flush plates	101 ㎜ or less	N
KS C 8401 : 2016	Rigid steel conduits	outside diameter : 19.1 ㎜, 25.4 ㎜, 31.8 ㎜, 38.1 ㎜, 50.8 ㎜, 63.5 ㎜, 76.2 ㎜	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C 8422 : 2005	Flexible metal conduits	thickness : 0.25 ㎜, 0.3 ㎜, 0.35 ㎜, 0.4 ㎜	N
KS C 8425 : 2014	Underfloor ducts (steel)	size (3 600 ㎜)	N
KS C 8431 : 2014	Unplasticized polyvinyl chloride (UPVC) conduit	2000 V or less	N
KS C 8434 : 2005	Connectors (for rigid P.V.C conduit tubes)	outside diameter : 18 ㎜, 22 ㎜, 26 ㎜, 34 ㎜, 42 ㎜, 48 ㎜, 60 ㎜, 76 ㎜, 89 ㎜, 114 ㎜	N
KS C 8436 : 2012	Saddles for rigid PVC conduit tubes	nominal diameter : 3.6 ㎜ ~ 5.3 ㎜	N
KS C 8452 : 2002	Lighting busways	25 A or less	N
KS C 8454 : 2006	Junction box for indoor wiring(for polyvinyl - chloride insulated and sheathed cables : VVF)	a.c. 250 V	N
KS C 8455 : 2016	Pliable plastics conduits	temperature : (-15 ~ 60) ℃	N
KS C 8456 : 2005	Corrugated hard polyethylene pipe	outside diameter: 260 ㎜ or less	N
KS C 8457 : 2005	Fittings for pliable plastics conduits	temperature : (-15 ~ 60) ℃	N
KS C 8458 : 2012	Fittings for under underfloor ducts	size 340 ㎜ or less	N
KS C 8459 : 2005	Box and box cover for rigid metal conduits	size 34.8 ㎜ or less	N
KS C 8460 : 2005	Fittings for flexible metal conduits	1 961 N or less	N
KS C 8460 : 2005	Fittings for rigid metal conduits	size 4 ㎜ or less, 2 942 N or less	N
KS C 8461 : 2005	Surface accessary for rigid metal conduits	size 88 ㎜ or less	N
KS C 8463 : 1997	Boxes for elevator call button switch	thickness 1.6 ㎜ or less	N
KS C 8464 : 2016	Cable tray	thickness 6.0 ㎜ or less	N
KS C IEC 60060-1 : 2001	High - voltage test techniques. Part 1 : General definitions and test requirements	a.c. 24 kV or less	N
KS C IEC 60060-2 : 2001	High voltage test techniques - Part 2 : Measuring systems	a.c. 24 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60309-1 : 2008	Plugs, socket - outlets and couplers for industrial purposes - Part 1 : General requirements	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N
KS C IEC 60309-2 : 2008	Plugs, socket - outlets and couplers for industrial purposes - Part 2 : Dimensional interchangeability requirements for pin and contact - tube accessories	(d.c. / a.c.) 1 000 V / 30 A or less, 690 V / 125 A or less	N
KS C IEC 60320-1 : 2012	Appliance couplers for household and similar general purposes - Part 1 : General requirements	a.c. 250 V, 16 A or less	N
KS C IEC 60320-2-1 : 2002	Appliance couplers for household and similar general purposes - Part 2 - 1 : Sewing machine couplers	a.c. 250 V, 2.5 A or less	N
KS C IEC 60320-2-2 : 2014	Appliance couplers for household and similar general purposes - Part 2 - 2 : Interconnection couplers for household and similar equipment	a.c. 250 V, 16 A or less	N
KS C IEC 60320-2-3 : 2012	Appliance couplers for household and similar general purposes - Part 2 - 3 : Appliance couplers with a degree of protection higher than IPX0	a.c. 250 V, 10 A or less	N
KS C IEC 60439-1 : 2003	Low - voltage switchgear and controlgear assemblies - Part 1 : Type-tested and partially type - tested as	a.c. 600 V, 2 500 A or less	N
KS C IEC 60439-2 : 2008	Low - voltage switchgear and controlgear assemblies - Part 2 : Particular requirements for busbar trunking systems (busways)	a.c. 600 V, 2 500 A or less	N
KS C IEC 60439-3 : 2003	Low - voltage switchgear and controlgear assemblies - Part 3 : Particular requirements for low - voltage	a.c. 600 V, 2 500 A or less	N
KS C IEC 60439-4 : 2016	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites(ACS)	a.c. 600 V, 2 500 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60439-5 : 2003	Low - voltage switchgear and controlgear assemblies - Part 5 : Particular requirements for assemblies intended to be installed outdoor in public places - Cable distribution cabinets(CDCs) for power distribution in networks	a.c. 600 V, 2 500 A or less	N
KS C IEC 60730-2-1 : 2002	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for electrical controls for electrical household appliances	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-10 : 2014	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for electrically operated motor starting relays	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-11 : 2014	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for energy regulators	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-12 : 2003	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for electrically operated door locks	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-13 : 2002	Automatic electrical controls for household and similar use - Part 2 - 13 : Particular requirements for humidity sensing controls	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-14 : 2003	Automatic electrical controls for household and similar use - Part 2 - 14 : Particular requirements for electric actuators	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-15 : 2003	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for automatic electrical water level sensing controls of the float or electrode - sensor type used in boiler applications	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60730-2-16 : 2003	Automatic electrical controls for household and similar use - Part 2 - 16 : Particular requirements for automatic electrical water level controls of the float type for household and similar applications	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-17 : 2003	Automatic electrical controls for household and similar use - Part 2 - 17 : Particular requirements for electrically operated gas valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-18 : 2014	Automatic electrical controls for household and similar use - Part 2 - 18 : Particular requirements for automatic electrical water andair flow sensing controls, including mechanical requirements	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-19 : 2003	Automatic electrical controls for household and similar use - Part 2 - 19 : Particular requirements for electrically operated oil valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-2 : 2014	Automatic electrical controls for household and similar use - Part 2 - 2 : Particular requirements for thermal motor protectors	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-3 : 2002	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-4 : 2002	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for thermal motor protectors for motor — compressors of hermetic and semi — hermetic type	a.c. 690 V, 63 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60730-2-5 : 2002	Automatic electrical controls for household and similar use - Part 2 - 5 : Particular requirements for automatic electrical burner control systems	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-6 : 2014	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-7 : 2014	Automatic electrical controls for household and similar use - Part 2 : Particular requirements for timers and time switches	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-8 : 2002	Automatic electrical controls for household and similar use - Part 2 - 8 : Particular requirements for electrically operated water valves, including mechanical requirements	a.c. 690 V, 63 A or less	N
KS C IEC 60730-2-9 : 2014	Automatic electrical controls for household and similar use - Part 2 - 9 : Particular requirements for temperature sensing controls	a.c. 690 V, 63 A or less	N
KS C IEC 60884-1 : 2010	Plugs and socket - outlets for household and similar purposes - Part 1 : General requirements	a.c. 440 V or less, 32 A or less	N
KS C IEC 60884-2-1 : 2008	Plugs and socket - outlets for household and similar purposes - Part 2 : Particular requirements for fused plugs	a.c. 440 V or less, 32 A or less	N
KS C IEC 60884-2-2 : 2008	Plugs and socket - outlets for household and similar purposes. - Part 2 : Particular requirements for socket - outlets for appliances	a.c. 250 V or less, 16 A or less	N
KS C IEC 60884-2-3 : 2008	Plugs and socket - outlets for household and similar purposes - Part 2 : Particular requirements for switched socket - outlets without interlock for fixed installations	a.c. 440 V or less, 32 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60884-2-4 : 2002	Plugs and socket - outlets for household and similar purposes - Part 2 - 4 : Particular requirements for plugs and socket - outlets for SELV	d.c./a.c. 48 V or less, 16 A or less	N
KS C IEC 60884-2-5 : 2002	Plugs and socket - outlets for household and similar purposes - Part 2 : Particular requirements for adaptors	a.c. 440 V or less, 32 A or less	N
KS C IEC 60884-2-6 : 2002	Plugs and socket - outlets for household and similar purposes - Part 2 - 6 : Particular requirements for switched socket - outlets with interlock for fixed electrical installations	a.c. 440 V or less, 32 A or less	N
KS C IEC 60947-1 : 2014	Low - voltage switchgear and controlgear - Part 1 : General rules	a.c. 690 V, 150 A or less	N
KS C IEC 60947-5-1 : 2012	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices (exception) 8.3.4 Performance under conditional short - circuit current	AC 500 V or less AC 150 A or less	N
KS C IEC 60981 : 2014	Extra heavy - duty electrical rigid steel conduits	inside diameter : (12.5 ~ 154.8) ㎜ outside diameter : (17.1 ~ 168.3) ㎜ pipe thickness : (2.31 ~ 6.76) ㎜ length with coupling : 3.00 m	N
KS C IEC 61180-1 : 2006	High - voltage test techniques for low voltage equipment - Part 1 : Definitions, test and procedure requirements	a.c. 24 kV or less	N
KS C IEC 61180-2 : 2006	High - voltage test techniques for low voltage equipment - Part 2 : Test equipment	a.c. 24 kV or less	N
KS C IEC 61242 : 2012	Electrical accessories - Cable reels for household and similar purposes	a.c. 440 V or less, 16 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 61386-22 : 2014	Conduit systems for cable management - Part 22 : Particular requirements - Pliable conduit systems	outside screw thread : (5.5 ~ 19.0) ㎜ inside screw thread : (6.5 ~ 20.0) ㎜	N
K 10026 : 2013	Automatic socket - outlet to cut - off standby power	a.c. 250 V, 16 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KC 62133 : 2015	Secondary cells and batteries containing alkaline or other non - acid electrolyte - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application	DC 50 V, 50 A or less	N
K 62133 : 2012	Secondary cells and batteries containing alkaline or other non-acid electrolyte - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application	DC 50 V, 50 A or less	N
IEC 60085 Ed. 4.0 b : 2007	Electrical insulation - Thermal classification and designation	250 ℃ or less	N
IEC 60384-1 Ed. 5.0 b : 2016	Fixed capacitors for use in electronic equipment - Part 1 : Generic specification	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-14 Ed. 4.0 b : 2013	Fixed capacitors for use in electronic equipment - Part 14 : Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-4 Ed. 5.0 b : 2016	Fixed capacitors for use in electronic equipment - Part 4 : Sectional specification - Aluminium electrolytic capacitors with solid(MnO2) and non - solid electrlyte	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-4-1 Ed. 3.0 b : 2007	Fixed capacitors for use in electronic equipment - Part 4 - 1 : Blank detail specification - Fixed aluminium electrolytic capacitors with non-solid electrolyte - Assessment level EZ	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
IEC 60384-4-2 Ed. 2.0 b : 2007	Fixed capacitors for use in electronic equipment - Part 4 - 2 : Blank detail specification - Fixed aluminium electrolytic capacitors with solid(MnO2) electrolyte - Assessment level EZ	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-8 Ed. 4.0 b : 2015	Fixed capacitors for use in electronic equipment - Part 8 : Sectional specification: Fixed capacitors of ceramic dielectric, Class 1	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-9 Ed. 4.0 b : 2015	Fixed capacitors for use in electronic equipment - Part 9 : Sectional specification : Fixed capacitors of ceramic dielectric, Class 2	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60384-9-1 Ed. 2.0 en : 2005	Fixed capacitors for use in electronic equipment - Part 9 - 1 : Blank detail specification : Fixed capacitors of ceramic dielectric, Class 2 - Assessment level EZ	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
IEC 60529 Ed. 2.2 b : 2013	Degrees of protection provided by enclosures (IP Code)	IP 68 or less	N
IEC 60664-1 Ed. 2.0 b : 2007	Insulation coordination for equipment within low - voltage systems - Part 1 : Principles, requirements and tests	d.c. 1 500 V or less, a.c 1 000 V 30 kHz or less	N
IEC 60669-1 Ed. 3.2 b : 2007	Switches for household and similar fixed - electrical installations - Part 1 : General requirements	a.c. 440 V, 63 A or less	N
IEC 60669-2-1 Ed. 4.2 b : 2015	Switches for household and similar fixed electrical installations - Part 2 - 1 : Particular requirements - Electronic switches	a.c. 250 V, 16 A or less	N
IEC 60669-2-2 Ed. 3.0 b :2006	Switches for household and similar fixed electrical installations - Part 2 - 2 : Particular requirements - Electromagnetic remote-control switches (RCS)	a.c. 440 V, 63 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
IEC 60669-2-3 Ed. 3.0 b : 2006	Switches for household and similar fixed electrical installations - Part 2 - 3 : Particular requirements - Time - delay switches(TDS)	a.c. 440 V, 63 A or less	N
IEC 60669-2-4 Ed. 1.0 b : 2004	Switches for household and similar fixed electrical installations - Part 2 - 4 : Particular requirements - Isolating switches	a.c. 440 V, 125 A or less	N
IEC 60939-1 Ed. 3.0 b : 2010	Passive filter units for electromagnetic interference suppression - Part 1 : Generic specification	a.c. 500 V or less frequency 100 Hz	N
IEC 60939-2 Ed. 2.0 en : 2005	Passive filter units for electromagnetic interference suppression - Part 2 : Sectional specification - Passive filter units for which safety tests are appropriate - Test methods and general requirements	a.c. 500 V or less frequency 100 Hz	N
IEC 61048 Ed. 2.1 b : 2015	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	a.c. 1 000 V or less 2.5 kVAr	N
IEC 61058-1 Ed. 4.0 b : 2016	Switches for appliances - Part 1 : General requirements	a.c. 480 V, 63 A or less	N
IEC 61058-2-1 Ed. 2.0 b : 2010	Switches for appliances - Part 2 - 1 : Particular requirements for cord switches	a.c. 250 V, 16 A or less	N
IEC 61058-2-4 Ed. 1.1 b : 2003	Switches for appliances - Part 2 - 4 : Particular requirements for independently mounted switches	a.c. 480 V, 63 A or less	N
IEC 61058-2-5 Ed. 2.0 b : 2010	Switches for appliances - Part 2 - 5 : Particular requirements for change - over selectors	a.c. 480 V, 63 A or less	N
IEC 61095 Ed. 2.0 b : 2009	Electromechanical contactors for household and similar purposes	440 V, 40 A or less	N
KC 60085 : 2015	Electrical insulation - Thermal evaluation and designation	480 V, 63 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KC 60384-1 : 2015	Fixed capacitors for use in electronic equipment - Part 1: Generic specification	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
KC 60384-14 : 2015	Fixed capacitors for use in electronic equipment - Part 14 : Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
KC 60529 : 2015	Degrees of protection provided by enclosures(IP Code)	IP 68 or less	N
KC 60669-1 : 2015	Switches for household and similar fixed-electrical installations - Part 1 : General requirements	a.c. 440 V, 63 A or less	N
KC 60669-2-1 : 2015	Switches for household and similar fixed electrical installations - Part 2 - 1 : Particular requirements - Electronic switches	a.c. 250 V, 16 A or less	N
KC 60669-2-2 : 2015	Switches for household and similar fixed electrical installations - Part 2 - 2 : Particular requirements - Electromagnetic remote-control switches (RCS)	a.c. 440 V, 63 A or less	N
KC 60669-2-3 : 2015	Switches for household and similar fixed electrical installations - Part 2 - 3 : Particular requirements - Time - delay switches(TDS)	a.c. 440 V, 63 A or less	N
KC 60939-1 : 2015	Passive filter units for electromagnetic interference suppression - Part 1 : Generic specification	a.c. 500 V or less frequency 100 Hz	N
KC 60939-2 : 2015	Passive filter units for electromagnetic interference suppression - Part 2 : Sectional specification - Passive filter units for which safety tests are appropriate - Test methods and general requirements	a.c. 500 V or less frequency 100 Hz	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KC 61048 : 2015	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	a.c. 1 000 V or less 2.5 kVAr	N
KC 61050 : 2015	Transformers for tubular discharge lamps having a no - load output voltage exceeding 1 000 V(generally called neon - transformers). - General and safety requirements	a.c. 1000 V or less	N
KC 61058-1 : 2015	Switches for appliances - Part 1 : General requirements	a.c. 480 V, 63 A or less	N
KC 61058-2-1 : 2015	Switches for appliances - Part 2 - 1 : Particular requirements for cord switches	a.c. 250 V, 16 A or less	N
KC 61058-2-4 : 2015	Switches for appliances - Part 2 - 4 : Particular requirements for independently mounted switches	a.c. 480 V, 63 A or less	N
KC 61058-2-5 : 2015	Switches for appliances - Part 2 - 5 : Particular requirements for change - over selectors	a.c. 480 V, 63 A or less	N
K 61095 : 2002	Electromechanical contactors for household and similar purposes	440 V, 63 A or less	N
KS B 6154 : 2016	Room thermostats	220 V, 20 A or less	N
KS C 2206 : 2002	Glass mats for lead-acid batteries	thickness : 0.6 ㎜ under thickness : (0.6 ~ 1.0) ㎜ thickness : 1.0 ㎜ exceed	N
KS C 2212 : 2002	Metallized polyester film for capacitors	thickness : (4.0 ~ 16.0) ㎛	N
KS C 2301 : 2015	Electrical insulating oils	type 1 ~ 7	N
KS C 2302 : 2014	Cotton - rubber adhesive tapes for electrical insulation	-	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C 2306 : 2003	Pressure - sensitive adhesive polyvinyl chloride tapes for electrical insulation	-	N
KS C 2321 : 2014	Varnishes for enameled wires	-	N
KS C 2322 : 2003	Coil insulating papers	-	N
KS C 2324 : 2003	Combined flexible materials consisting of polyester films and insulating papers for electrical purposes	-	N
KS C 2325 : 2003	Heat baking coil varnishes	-	N
KS C 2344 : 2003	Polyester films for electrical purposes	-	N
KS C 2347 : 2003	Pressure - sensitive polyester adhesive tapes for electrical insulation	-	N
KS C 2351 : 2014	Glassfabric based varnished fabrics	-	N
KS C 2356 : 2003	Air drying coil varnishes	-	N
KS C IEC 60394-1 : 2001	Varnished fabrics for electrical purposes - Part 1 : Definitions and general requirements.	-	N
KS C IEC 60371-1 : 2008	Specification for insulating materials based on mica - Part 1 : Definition and general requirements.	-	N
KS C 2363 : 2002	Mica with paper on both sides (Sheets and tapes)	-	N
KS C 2364 : 2002	Flexible mica materials	-	N
KS C IEC 60464-1 : 2015	Varnishes used for electrical insulation Part 1 : Definitions and general requirements	- -	N
KS C 2508 : 2003	Resin flux cored solders	outside diameter : (0.3 ~ 3.0) ㎜	N
KS C 2620 : 2011	Crimp - type terminal lugs for copper conductors	-	N
KS C 2621 : 2005	Non - insulated crimp-type sleeves for copper conductors	-	N
KS C 2624 : 2005	Flat quick - connect terminals	-	N
KS C 2625 : 1990	Terminal blocks for industrial and similar use	(a.c. / d.c.) 600 V or less	N
KS C 3117 : 2014	Deadend clamp and bolt type connector for aluminum	-	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C 3134 : 2008	Contact conductors with insularing covers	d.c. 750 V or less, a.c. 600 V or less, 2 000 A or less	N
KS C 4307 : 2013	Pole transformer bushings	extra - high tension bushing (for 22.9 kV, for 11.4 kV) high - tension (for 6 kV)	N
KS C 4505 : 1975	Control switch for AC magnetic switch	a.c. 600 V, 15 A or less, frequency 60 Hz	N
KS C 4506 : 1990	Cut - out switches	a.c. 250 V, 100 A or less	N
KS C 4508 : 2012	Sensitive switches	a.c. 600 V, d.c. 250 V, frequency 60 Hz, 25 A or less	N
KS C 4515 : 1990	Enclosed switches	a.c. 250 V, frequency 60 Hz, 100 A, 3.7 kW or less	N
KS C 4517 : 1978	Button control switches	a.c. 600 V, d.c. 250 V, frequency 60 Hz or less 40 A or less	N
KS C 4519 : 1992	Cam operated control switches	a.c. 600 V (frequency 60 Hz), d.c. 250 V or less 40 A or less	N
KS C 4522 : 1986	Mechanical timer	a.c. 300 V, frequency 60 Hz or less 40 A or less	N
KS C 4524 : 2002	Proximity switches	a.c. 250 V, frequency 60 Hz or less, d.c. 300 V or less 40 A or less	N
KS C 4534 : 1990	Electronic preset counters	a.c. 250 V (frequency 60 Hz), d.c. 250 V or less 40 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C 4612 : 2001	High - voltage current - limiting fuses	a.c. 1 000 V exceed	N
KS C 4801 : 2003	Low - voltage power condenser	a.c. 1 000 V or less	N
KS C 4802 : 1997	High voltage power condenser	a.c. 1 000 V or less	N
KS C 4803 : 2002	Electrolytic capacitors for motor starting	a.c. 380 V or less	N
KS C 4804 : 1981	Discharge coils for high voltage power capacitors	44 600 V or less (single phase) 33 000 V or less (three phases)	N
KS C 4805 : 2002	Capacitors for electrical apparatus	a.c. 1 000 V or less	N
KS C 4806 : 1989	Series reactors for high voltage power capacitors	a.c. 2 660 V or less	N
KS C 5506 : 1996	Cassette tape	rating tape speed : 4.76 cm/s	N
KS C 5517 : 1998	Video cassette tape (VHS Type)	vertical frequency : 60 Hz number of scanning line: 525 width 12.65 ㎜	N
KS C 6038 : 2014	Toggle switches for use in electronic equipment	a.c. 300 V, 20 A or less	N
KS C 6042 : 1995	Enclosed sensitive switches	a.c. 500 V (frequency 60 Hz), d.c. 250 V, 20 A or less	N
KS C 6409 : 2002	Carbon potentiometers for general use	niminal outside diameter : 12 ㎜, 16 ㎜, 24 ㎜	N
KS C 6410 : 2002	Fixed ceramic capacitors(Class 2) for electronic equipment	rated voltage : 50 V, 500 V, 1 000 V, 2 000 V, 3 150 V, 4 000 V, 6 300 V	N
KS C 6411 : 2002	Fixed ceramic capacitors class 1 for use in electronic equipment	rated voltage : 50 V, 500 V, 1 000 V, 2 000 V, 3 150 V, 4 000 V, 6 300 V	N
KS C 6419 : 2002	Fixed wire wound resistors - Power type	temperature : -55 ℃ ~ 200 ℃	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C 6423 : 2002	Fixed mica capacitors for use in electronic equipment	temperature coefficient : (-200 ~ +200) ppm/℃	N
KS C 6502 : 1983	Disk records	nominal outside diameter : 17 cm, 25 cm, 30 cm	N
KS C 6609 : 1997	Concentric plugs and jacks	adhesive strength : 0.15 Nm, 0.2 Nm, 0.3 Nm	N
KS C 7001 : 1979	Sockets for electronic tubes	insulation : 1 000 MΩ exceed	N
KS C 8303 : 1992	Link fuses	a.c. 250 V or less	N
KS C 8308 : 1990	Thermostats	a.c. 250 V or less, 20 A or less	N
KS C 8309 : 2014	Small switches for indoor use	a.c. 250 V or less, frequency 60 Hz, 20 A or less	N
KS C 8311 : 1990	Knife switches with cover	a.c. 250 V or less, frequency 60 Hz, 100 A or less	N
KS C 8318 : 1990	Small switches for street lamp	a.c. 250 V or less, 30 A or less	N
KS C IEC 60730-1 : 2002	Automatic electrical controls for household and similar use - Part 1 : General requirements	a.c. 440 V or less, 40 A or less	N
KS C 8501 : 2014	Manganese dry cells and batteries	size : 10.5 mm, 12.0 mm, 14.5 mm, 26.2 mm, 34.2 mm, 67 mm, 76.5 mm	N
KS C 8504 : 2015	Lead - acid batteries for automobiles	12 V, 200 A	N
KS C 8505 : 2008	Stationary lead - acid batteries	6 V, 200 A	N
KS C 8508 : 2005	Butteries for Train	2 V, 200 A	N
KS C 8509 : 2004	Batteries for diesel locomotives	8 V, 200 A	N
KS C 8510 : 2003	Lead- acid batteries for motorcycles	12 V, 200 A	N
KS C 8511 : 2003	Batteries for motor train	12 V, 200 A	N
KS C 8513 : 2014	Alkaline primary cells and batteries	1.55 V	N
KS C 8515 : 2003	Sealed nickel - cadmium cylindrical rechargeable single cells	1.2 V, 200 A	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C 8517 : 2002	Vented nickel - cadmium prismatic secondary single cells	1.2 V, 200 A	N
KS C IEC 60384-3 : 2005	Fixed capacitors for use in electronic equipment - Part 3 : Sectional specification : Surface mount fixed tantalum electrolytic capacitors with manganese dioxide solid electrolyte	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
KS C IEC 60384-4 : 2005	Fixed capacitors for use in electronic equipment - Part 4 : Sectional specification : Aluminium electrolytic capacitors with solid and non-solid electrolyte	a.c. 1 000 V or less d.c. 1 000 V or less frequency 100 Hz or less	N
KS C IEC 60529 : 2013	Degrees of protection provided by enclosures(IP Code)	IP 68 or less	N
KS C IEC 60641-3-1 : 2015	Specification for pressboard and presspaper for electrical purposes - Part 3 : Specifications for individual materials - Sheet 1 : Requirements for pressboard, types B.0.1, B.2.1, B.2.3, B.3.1, B.3.3, B.4.1, B.4.3, B.5.1, B.6.1 and B.7.1	tensile strength 110 ㎫ or less, extension 10 % or less	N
KS C IEC 60669-1 : 2008	Switches for household and similar fixed - electrical installations - Part 1 : General requirements	a.c. 440 V, 63 A or less	N
KS C IEC 60669-2-1 : 2005	Switches for household and similar fixed electrical installations - Part 2 - 1 : Particular requirements - Electronic switches	a.c. 250 V, 16 A or less	N
KS C IEC 60669-2-2 : 2008	Switches for household and similar fixed electrical installations - Part 2 : Particular requirements - Section 2 : Remote - control switches (RCS)	a.c. 440 V, 63 A or less	N
KS C IEC 60669-2-3 : 2008	Switches for household and similar fixed electrical installations - Part 2 - 3 : Particular requirements - Time - delay switches(TDS)	a.c. 440 V, 63 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C IEC 60939-1 : 2003	Passive filter units for electromagnetic interference suppression - Part 1 : Generic specification	a.c. 500 V or less frequency 100 Hz	N
KS C IEC 60939-2 : 2003	Passive filter units for electromagnetic interference suppression - Part 2 : Sectional specification - Passive filter units for which safety tests are appropriate - Test methods and general requirements	a.c. 500 V or less frequency 100 Hz	N
KS C IEC 61048 : 2008	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	a.c. 1 000 V or less 2.5 kVAr	N
KS C IEC 61058-1 : 2012	Switches for appliances - Part 1 : General requirements	a.c. 480 V, 63 A or less	N
KS C IEC 61058-2-1 : 2012	Switches for appliances - Part 2 - 1 : Particular requirements for cord switches	a.c. 250 V, 16 A or less	N
KS C IEC 61058-2-4 : 2003	Switches for appliances - Part 2 - 4 : Particular requirements for independently mounted switches	a.c. 480 V, 63 A or less	N
KS C IEC 61058-2-5 : 2012	Switches for appliances - Part 2 - 5 : Particular requirements for change - over selectors	a.c. 480 V, 63 A or less	N
KS C IEC 62133 : 2013	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	-20 ℃ ~ 75 ℃	N
KS R IEC 60254-1 : 2003	Lead - acid traction batteries - Part 1 : General requirements and methods of tests	-	N
KS R IEC 60254-2 : 2003	Lead - acid traction batteries - Part 2 : Dimensions of cells and terminals and marking of polarity on cells	-	N
KS E 6008 : 1989	Lead - acid traction batteries	-15 ℃ ~ 45 ℃	N
K 10024 : 2012	Safety requirements of Hazardous substance for Sealed secondary batteries	12 V	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KC 62133 : 2019	Secondary cells and batteries containing alkaline or other non - acid electrolyte - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application	DC 45 V, 50 A or less	N
KS C IEC 62133-1 : 2017	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 45 V, 50 A or less	N
KS C IEC 62133-2 : 2017	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2 : Lithium systems (Exception) 7.3.9 Design evaluation - Forced internal short circuit	DC 45 V, 50 A or less	N
IEC 62133-1 : 2017	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 45 V, 50 A or less	N
IEC 62133-2 : 2017	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2 : Lithium (Exception) 7.3.9 Design evaluation - Forced internal short circuit	DC 45 V, 50 A or less	N

No. KT005

03.005 Measuring instruments performance Test

Test method	Standard designation	Test range	Field testing
IEC 61010-1 Ed3.1 : 2017	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1 : General requirements	(직류 / 교류) 250 V 이하 다상 및 기타 500 V 이하, 50 Hz / 60 Hz	N
IEC 61010-2-010 Ed3.0 : 2014	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2 - 010 : Particular requirements for laboratory equipment for the heating of materials	(직류 / 교류) 250 V 이하 다상 및 기타 500 V 이하, 50 Hz / 60 Hz	N
IEC 61010-2-020 Ed3.0 : 2016	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2 - 020 : Particular requirements for laboratory centrifuges	(직류 / 교류) 250 V 이하 다상 및 기타 500 V 이하, 50 Hz / 60 Hz	N
IEC 61010-2-040 Ed2.0 : 2015	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2 - 040 : Particular requirements for sterilizers and washer - disinfectors used to treat medical materials	(직류 / 교류) 250 V 이하 다상 및 기타 500 V 이하, 50 Hz / 60 Hz	N
IEC 61010-2-101 Ed2.0 : 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2 - 101 : Particular requirements for in vitro diagnostic (IVD) medical equipment	(직류 / 교류) 250 V 이하 다상 및 기타 500 V 이하, 50 Hz / 60 Hz	N
KS C 1208 : 2010	Alternating - current wat t -hour meters(for direct connection)	a.c. 600 V or less	N
KS C IEC 60051-1 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 1 : Definitions and general requirements common to all Parts	-	N
KS C IEC 60051-2 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 2 : Special requirements for ammeters and voltmeters	grade : 0.05, 0.1, 0.2, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5	N

No. KT005

03.005 Measuring instruments performance Test

Test method	Standard designation	Test range	Field testing
KS C IEC 60051-3 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 3 : Special requirements for wattmeters and varmeters	grade : 0.05, 0.1, 0.2, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5	N
KS C IEC 60051-4 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 4 : Special requirements for frequency meters	grade : 0.05, 0.1, 0.15, 0.2, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5	N
KS C IEC 60051-5 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 5 : Special requirements for phase meters, power factor meters and synchroscopes	grade : 0.1, 0.2, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5	N
KS C IEC 60051-6 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 6 : Special requirements for ohmmeters (impedance meters) and conductance meters	grade : 0.05, 0.1, 0.2, 0.5, 1, 1.5, 2, 2.5, 3, 5	N
KS C IEC 60051-7 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 7 : Special requirements for multi - function instruments	grade : 0.05, 0.1, 0.15, 0.2, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5	N
KS C IEC 60051-8 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 8 : Special requirements for accessories	grade : 0.02, 0.05, 0.1, 0.2, 0.3, 0.5, 1, 2, 5, 10	N
KS C IEC 60051-9 : 2013	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 9:Recommended test methods	-	N
KS C 1604 : 1987	Indicating resistance thermometers	(-200 ~ 500) ℃	N
KS C 1608 : 1987	Indicating thermoelectric thermometers	(-200 ~ 1 700) ℃	N
KS C 1609 : 2008	Compensating lead wires	(-20 ~ 150) ℃	N

No. KT005

03.005 Measuring instruments performance Test

Test method	Standard designation	Test range	Field testing
KS C 1613 : 2009	Thermoelectric digital thermometer	(-200 ~ 1 700) ℃	N
KS C 1614 : 2009	Resistance digital thermometer	(-200 ~ 500) ℃	N
KS C 1706 : 1982	Instrument transformers for testing purpose and used with general instrument	-	N
KS C 1707 : 2011	Instrument transformers for metering service	-	N
KS C IEC 61010-1 : 2014	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1 : General Requirements	-	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 60034-1 : 2017	Rotating electrical machines - Part 1 : Rating and performance	Single phase : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
IEC 60745-1 : 2006	Hand - held motor - operated electric tools - Safety - Part 1 : General requirements	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-1 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 1 : Particular requirements for drills and impact drills	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-11 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 11 : Particular requirements for reciprocating saws(jig and sabre saws)	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-12 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 12 : Particular requirements for concrete vibrators	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-13 : 2011	Hand - held motor - operated electric tools - Safety - Part 2 - 13 : Particular requirements for chain saws	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-14 : 2010	Hand - held motor - operated electric tools - Safety - Part 2 - 14 : Particular requirements for planers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-15 : 2009	Hand - held motor - operated electric tools - Safety - Part 2 - 15 : Particular requirements for hedge trimmers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-16 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 16 : Particular requirements for tackers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-17 : 2010	Hand - held motor - operated electric tools - Safety - Part 2 - 17 : Particular requirements for routers and trimmers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 60745-2-18 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 18 : Particular requirements for strapping tools	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-19 : 2010	Hand - held motor - operated electric tools - Safety - Part 2 - 19 : Particular requirements for jointers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-20 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 20 : Particular requirements for band saws	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-21 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 21 : Particular requirements for drain cleaners	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-2 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 2 : Particular requirements for screwdrivers and impact wrenches	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-3 : 2012	Hand - held motor - operated electric tools - Safety - Part 2 - 3 : Particular requirements for grinders, polishers and disk - type sanders	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-4 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 4 : Particular requirements for sanders and polishers other than disk type	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-5 : 2010	Hand - held motor - operated electric tools - Safety - Part 2 - 5 : Particular requirements for circular saws	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-6 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 6 : Particular requirements for hammers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 60745-2-7 : 1989	Safety of hand - held motor - operated electric tools. - Part 2 : Particular requirements for spray guns for non-flammable liquids	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-8 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 8 : Particular requirements for shears and nibblers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 60745-2-9 : 2008	Hand - held motor - operated electric tools - Safety - Part 2 - 9 : Particular requirements for tappers	(d.c. / a.c.) 250 V or less, three phases 440 V or less, 50 Hz / 60 Hz	N
IEC 61029-1 : 1990	Safety of transportable motor - operated electric tools - Part 1 : General requirements	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-1 : 2001	Safety of transportable motor - operated electric tools - Part 2 - 1 : Particular requirements for circular saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-2 : 1993	Safety of transportable motor - operated electric tools - Part 2 - 2 : Particular requirements for radial arm saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-3 : 2001	Safety of transportable motor - operated electric tools - Part 2 - 3 : Particular requirements for planers and thicknessers	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-4 : 2001	Safety of transportable motor - operated electric tools - Part 2 - 4 : Particular requirements for bench grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 61029-2-5 : 2001	Safety of transportable motor - operated electric tools - Part 2 - 5 : Particular requirements for band saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-6 : 1993	Safety of transportable motor - operated electric tools - Part 2 - 6 : Particular requirements for diamond drills with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-7 : 1993	Safety of transportable motor - operated electric tools - Part 2 - 7 : Particular requirements for diamond saws with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-8 : 2001	Safety of transportable motor - operated electric tools - Part 2 - 8 : Particular requirements for single spindle vertical moulders	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-9 : 1995	Safety of transportable motor - operated electric tools - Part 2 - 9 : Particular requirements for mitre saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-10: 1998	Safety of transportable motor - operated electric tools - Part 2 - 10 : Particular requirements for cutting - off grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61029-2-11: 2001	Safety of transportable motor - operated electric tools - Part 2 - 11 : Particular requirements for mitre - bench saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-10 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 10 : Particular requirements for cutting - off grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 60745-2-18 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 18 : Particular requirements for strapping tools	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-19 : 2007	Hand - held motor - operated electric tools - Safety - Part 2 - 19 : Particular requirements for jointers	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-20 : 2014	Hand - held motor - operated electric tools - Safety - Part 2 - 20 : Particular requirements for band saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-21 :2007	Hand - held motor - operated electric tools - Safety - Part 2 - 21 : Particular requirements for drain cleaners	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-10 :2007	Safety of transportable motor - operated electric tools - Part 2 - 10 : Particular requirements for cutting - off grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-11 :2007	Safety of transportable motor - operated electric tools - Part 2 - 11 : Particular requirements for mitre - bench saws	(d.c. / a.c.) 250 V, 2.5 kW or less, three phases 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
IEC 61558-1 : 2017	Safety of transformers, reactors, power supply units and combinations thereof - Part 1 : General requirements and tests	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-1 Ed. 2.1 b : 2009	Safety of power transformers, power supplies reactors and similar products - Part 1 : General requirements and tests	380 V, 25 kVA 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 61558-2-1 Ed. 2.0 b : 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2 - 1 : Particular requirements and tests for separation transformers and power supplies incorporating separating transformers for general applications	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-12 Ed. 2.0 b : 2011	Safety of transformers, reactors, power supply units and combination thereof - Part 2 - 12 : Particular requirements and tests for constant voltage transformers and power supply units for constant voltage	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-13 Ed. 2.0 b : 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 13 : Particular requirements and tests for auto transformers and power supply units incorporating auto transformers	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-15 Ed. 2.0 b : 2011	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 15 : Particular requirements and tests for isolating transformers for the supply of medical locations	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-2 Ed. 2.0 b : 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2 - 2 : Particular requirements and tests for control transformers and power supplies incorporating control transformers	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-3 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 3 : Particular requirements and tests for ignition transformers for gas and oil burners	380 V, 25 kVA 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 61558-2-4 Ed. 2.0 b : 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 4 : Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-5 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 5 : Particular requirements and test for transformer for shavers, power supply units for shavers and shaver supply units	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-6 Ed. 2.0 b : 2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 6 : Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-7 Ed. 2.0 b : 2007	Safety of power transformers, power supplies, reactors and similar products - Part 2 - 7 : Particular requirements and tests for transformers and power supplies for toys	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-8 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 8 : Particular requirements and tests for transformers and power supply units for bells and chimes	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-9 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 9 : Particular requirements and tests for transformers and power supply units for class III handlamps for tungsten filament lamps	380 V, 25 kVA 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
IEC 61558-2-20 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 20 : Particular requirements and tests for small reactors	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 61558-2-23 Ed. 2.0 b : 2010	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 23 : Particular requirements and tests for transformers and power supply units for construction sites	380 V, 25 kVA 50 Hz / 60 Hz	N
IEC 60974-1 Ed. 4.0 b : 2012	Arc welding equipment - Part 1 : Welding power sources	380 V 50 Hz / 60 Hz	N
IEC 62040-1 : 2017	Uninterruptible power systems (UPS) - Part 1 : safety requirements	(single / three) phase 1 000 V or less	N
K 62040-1 : 2011	Uninterruptible power systems (UPS) - Part 1 : General and safety requirements for UPS	(single / three) phase 1 000 V or less	N
IEC 62040-3 : 2011	Uninterruptible power systems UPS) - Part 3 : Method of specifying the performance and test requirements	(single / three) phase 1 000 V or less	N
K 62040-3 : 2011	Uninterruptible power systems (UPS) - Part 3 : Method of specifying the performance and test requirements	(single / three) phase 1 000 V or less	N
K 10014 : 2008	Three phase squirrel cage , Single phase induction motors and similar rotating appliances for general purpose	(single / three) phase 600 V or less, 50 Hz / 60 Hz	N
KC 60745-1 : 2015	Hand - held motor-operated electric tools - Safety - Part 1 : General requirements	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-1 : 2015	Hand-held motor-operated electric tools - Safety - Part 2 - 1 : Particular requirements for drills and impact drills	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 60745-2-11 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 11 : Particular requirements for reciprocating saws(jig and sabre saws)	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-12 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 12 : Particular requirements for concrete vibrators	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-13 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 13 : Particular requirements for chain saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-14 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 14 : Particular requirements for planers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-15 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 15 : Particular requirements for hedge trimmers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-16 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 16 : Particular requirements for tackers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-17 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 17 : Particular requirements for routers and trimmers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-2 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 2 : Particular requirements for screwdrivers and impact wrenches	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 60745-2-3 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 3 : Particular requirements for grinders, polishers and disk - type sanders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-4 : 2015	Hand-held motor - operated electric tools - Safety - Part 2 - 4 : Particular requirements for sanders and polishers other than disk type	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-5 : 2016	Hand - held motor - operated electric tools - Safety - Part 2 - 5 : Particular requirements for circular saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-6 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 6 : Particular requirements for hammers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-7 : 2015	Safety of hand - held motor - operated electric tools. - Part 2 : Particular requirements for spray guns for non - flammable liquids	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-8 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 8 : Particular requirements for shears and nibblers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 60745-2-9 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 9 : Particular requirements for tappers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
K 60974-1 : 2010	Arc welding equipment - Part 1 : Welding power sources	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 61029-1 : 2015	Safety of transportable motor - operated electric tools - Part 1 : General requirements	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-1 : 2015	Safety of transportable motor - operated electric tools - Part 2 -1 : Particular requirements for circular saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-10 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 10 : Particular requirements for cutting - off grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-2 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 2 : Particular requirements for radial arm saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-3 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 3 : Particular requirements for planers and thicknessers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-4 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 4 : Particular requirements for bench grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-5 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 5 : Particular requirements for band saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-6 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 6 : Particular requirements for diamond drills with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 61029-2-7 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 7 : Particular requirements for diamond saws with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-8 : 2015	Safety of transportable motor - operated electric tools - Part 2 - 8 : Particular requirements for single spindle vertical moulders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61029-2-9 : 2015	Safety of transportable motor-operated electric tools - Part 2 - 9 : Particular requirements for mitre saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KC 61558-1 : 2015	Safety of power transformers, power supplies, reactors and similar products - Part 1 : General requirements and tests	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-1 : 2015	Safety of power transformers, power supplies, reactors and similar products - Part 2 - 1 : Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-13 : 2015	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 13 : Particular requirements and tests for auto transformers and power supply units incorporating auto ransformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-17 : 2015	Safety of power transformers, power supply units and similar - Part 2 - 17 : Particular requirements for transformers for switch mode power supplies	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-19 : 2015	Safety of power transformers, power supply units and similar devices - Part 2 - 19 : Particular requirements for perturbation attenuation transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 61558-2-2 : 2015	Safety of power transformers, power supplies, reactors and similar products - Part 2 - 2 : Particular requirements and tests for control transformers and power supplies incorporating control transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-20 : 2015	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 20 : Particular requirements and tests for small reactors	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-3 : 2015	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 3 : Particular requirements and tests for ignition transformers for gas and oil burners	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-4 : 2015	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 4 : Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-5 : 2015	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 5 : Particular requirements and test for transformer for shavers, power supply units for shavers and shaver supply units	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-6 : 2015	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2 - 6 : Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KC 61558-2-7 : 2015	Safety of transformers, power supply, reactors and similar products - Part 2 - 7 : Particular requirements and tests for transformers and power supplies for toys	380 V, 25 kVA, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KC 61558-2-8 : 2015	Safety of transformers, reactors, power supply units and combinations thereof - Part 2 - 8 : Particular requirements and tests for transformers and power supply units for bells and chimes	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C 4202 : 2013	Low-voltage three - phase squirrel - cage induction motors for general purpose	a.c. 600 V or less, 50 Hz / 60 Hz	N
KS C 4204 : 2003	Single phase induction motors for general purpose	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C 4306 : 2011	Single bushing transformers	380 V, 100 kVA, 50 Hz / 60 Hz	N
KS C 6308 : 2002	Power transformer for electronic equipment	100 kVA, 50 Hz / 60 Hz	N
KS C 9102 : 2002	Portable electric planers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C 9103 : 2002	Portable electric circular saws	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-3 : 2013	Household and similar electrical appliances — Safety — Part 2 - 3 : Particular requirements for electric irons	a.c. 250 V or less, 3Ø 480 V or less, 60 Hz	N
KS C IEC 60335-2-45 : 2013	Household and similar electrical appliances — Safety — Part 2 - 45 : Particular requirements for portable heating tools and similar appliances	a.c. 300 V or less, 2 000 W or less 60 Hz	N
KS C IEC 60335-2-30 : 2013	Household and similar electrical appliance —Safety— Part 2 - 30 : Particular requirements for room heaters	a.c. 250 V or less, 3Ø 480 V or less, 60 Hz	N
KS C 9602 : 2007	AC arc welding machines	380 V, 50 Hz / 60 Hz	N
KS C 9605 : 1997	Rectifier type DC arc welding machines with drooping characteristics	380 V, 50 Hz / 60 Hz	N
KS C 9613 : 2012	Step - down transformer for household purpose	380 V, 100 kVA 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C 9615 : 2002	Hand - held electric drills	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less, 50 Hz / 60 Hz,	N
KS C 9619 : 2014	Adjustable — transformer for household purpose	380 V, 100 kVA, 50 Hz / 60 Hz	N
KS C 9627 : 2002	Hand - held electric grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less, 50 Hz / 60 Hz,	N
KS C IEC 60745-1 : 2015	Hand - held motor - operated electric tools - Safety - Part 1 : General requirements	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-1 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 1 : Particular requirements for drills and impact drills	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-11 : 2007	Hand - held motor - operated electric tools - Safety - Part 2 - 11 : Particular requirements for reciprocating saws (jig and sabre saws)	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-12 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 12 : Particular requirements for concrete vibrators	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-13 : 2007	Safety of hand - held motor - operated electric tools. - Part 2 - 13 : Particular requirements for chain saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-14 : 2002	Hand - held motor - operated electric tools - Safety - Part 2 - 14 : Particular requirements for planers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 60745-2-15 : 2014	Safety of hand - held motor - operated electric tools. - Part 2 : Particular requirements for hedge trimmers and grass shears	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-16 : 2014	Safety of hand - held motor - operated electric tools - Part 2 : Particular requirements for tackers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-17 : 2007	Hand - held motor - operated electric tools - Safety - Part 2 - 17 : Particular requirements for routers and trimmers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-2 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 2 : Particular requirements for screwdrivers and impact wrenches	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-3 : 2007	Safety of hand - held motor - operated electric tools.— Part 2 - 3 : Particular requirements for grinders, polishers and disk - type sanders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-4 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 4 : Particular requirements for sanders and polishers other than disk type	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-5 : 2002	Hand - held motor - operated electric tools - Safety - Part 2 - 5 : Particular requirements for circular saws and circular knives	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-6 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 6 : Particular requirements for hammers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 60745-2-7 : 2003	Safety of hand - held motor - operated electric tools - Part 2 - 7 : Particular requirements for spray guns for non - flammable liquids	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-8 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 8 : Particular requirements for shears and nibblers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 60745-2-9 : 2015	Hand - held motor - operated electric tools - Safety - Part 2 - 9 : Particular requirements for tappers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-1 : 2014	Safety of transportable motor - operated electric tools - Part 1 : General requirements	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-1 : 2007	Safety of transportable motor - operated electric tools - Part 2 - 1 : Particular requirements for circular saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-2 : 2003	Safety of transportable motor - operated electric tools - Part 2 : Particular requirements for radial arm saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-3 : 2007	Safety of transportable motor - operated electric tools - Part 2 - 3 : Particular requirements for planers and thicknessers	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-4 : 2003	Safety of transportable motor - operated electric tools - Part 2 - 4 : Particular requirements for bench grinders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 61029-2-5 : 2003	Safety of transportable motor - operated electric tools - Part 2 - 5 : Particular requirements for band saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-6 : 2003	Safety of transportable motor - operated electric tools - Part 2 - 6 : Particular requirements for diamond drills with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-7 : 2003	Safety of transportable motor - operated electric tools - Part 2 - 7 : Particular requirements for diamond saws with water supply	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-8 : 2007	Safety of transportable motor - operated electric tools - Part 2 - 8 : Particular requirements for single spindle vertical moulders	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61029-2-9 : 2003	Safety of transportable motor - operated electric tools - Part 2 - 9 : Particular requirements for mitre saws	(d.c. / a.c.) 250 V, 2.5 kW or less, 3Ø 440 V or less 4 kW or less, 50 Hz / 60 Hz	N
KS C IEC 61558-1 : 2017	Safety of power transformers, power supplyunits and similar - Part 1 : General requirements and tests	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-13 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 13 : Particular requirements for auto - transformers for general use	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-15 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 15 : Particular requirements for isolating transformers for the supply of medical locations	380 V, 25 kVA, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 61558-2-17 : 2002	Safety of power transformers, power supply units and similar devices - Part 2 - 17 : Particular requirements for transformers for switch mode powersupplies	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-19 : 2002	Safety of power transformers, power supply units and similar devices - Part 2 - 19 : Particular requirements for perturbation attenuation transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-2 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 2 : Particular requirements for control transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-20 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 20 : Particular requirements for small reactors	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-3 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 3 : Particular requirements for ignition transformers for gas and oil burners	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-4 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 4 : Particular requirements for isolating transformers for general use	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-5 : 2017	Safety of power transformers, power supply units and simila devices - Part 2 - 5 : Particular requirements for shaver transformers and shaver supply units	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-6 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 6 : Particular requirements for safety isolating transformers for general use	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-7 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 7 : Particular requirements for transformers for toys	380 V, 25 kVA, 50 Hz / 60 Hz	N

No. KT005

03.006 Electrical equipments for industrial

Test method	Standard designation	Test range	Field testing
KS C IEC 61558-2-8 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 8 : Particular requirements for bell and chime transformers	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 61558-2-1 : 2017	Safety of power transformers, power supply units and similar devices - Part 2 - 1 : Particular requirements for separating transformers for general use	380 V, 25 kVA, 50 Hz / 60 Hz	N
KS C IEC 60034-1 : 2008	Rotating electrical machines - Part 1 : Rating and performance	Single phase : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
KS C IEC 60034-2-1 : 2008	Rotating electrical machines - Part 2 - 1 : Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles)	output 0.75 kW ~ 375 kW	N
SASO IEC 60034-1	Rotating electrical machines - Part 1 : Rating and performance	Single phase : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
EN 60065 : 2014	Audio, video and similar electronic apparatus Safety requirements	(d.c. / a.c.) 250 V or less three phases 433 V or less, 43 Hz ~ 67 Hz	N
EN 60950-1 : 2013	Safety of information technology equipment - Safety	voltage 600 V or less	N
IEC 60065 : 2010	Audio, video and similar electronic apparatus - Safety requirements	(d.c. / a.c.) 250 V or less three phases 433 V or less, 43 Hz ~ 67 Hz	N
IEC 60268-5 : 2007	Sound system equipment - Part 5 : Loudspeakers	20 Hz ~20 ㎑ or less	N
IEC 60335-1 : 2010	Household and similar electrical appliances - Safety - Part 1 : General requirements	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-1 : 2016	Household and similar electrical appliances - Safety - Part 1 : General requirements	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-10 : 2008	Household and similar electrical appliances - Safety - Part 2 - 10 : Particular requirements for floor treatment machines and wet scrubbing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-11 : 2015	Household and similar electrical appliances - Safety - Part 2 - 11 : Particular requirements for tumble dryers	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-12 : 2008	Household and similar electrical appliances - Safety - Part 2 - 12 : Particular requirements for warming plates and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-13 : 2016	Household and similar electrical appliances - Safety - Part 2 - 13 : Particular requirements for deep fat fryers, frying pans and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-14 : 2016	Household and similar electrical appliances - Safety - Part 2 - 14 : Particular requirements for kitchen machines	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-15 : 2016	Household and similar electrical appliances - Safety - Part 2 - 15 : Particular requirements for appliances for heating liquids	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-16 : 2012	Household and similar electrical appliances - Safety - Part 2 - 16 : Particular requirements for food waste disposers	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-17 : 2015	Household and similar electrical appliances - Safety— Part 2 - 17 : Particular requirements for blankets, pads and similar flexible heating appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-2 : 2016	Household and similar electrical appliances - Safety - Part 2 - 2 : Particular requirements for vacuum cleaners and water - suction cleaning appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-21 : 2012	Household and similar electrical appliances - Safety - Part 2 - 21 : Particular requirements for storage water heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-23 : 2016	Household and similar electrical appliances - Safety - Part 2 - 23 : Particular requirements for appliances for skin or hair care	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-24 : 2017	Household and similar electrical appliances - Safety - Part 2 - 24 : Particular requirements for refrigerating appliances, ice - cream appliances and ice - makers	d.c. 24 V or less, a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-25 : 2015	Household and similar electrical appliances - Safety - Part 2 - 25 : Particular requirements for microwave ovens, including combination microwave ovens	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-26 : 2008	Household and similar electrical appliances - Safety - Part 2 - 26 : Particular requirements for clocks	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-27 : 2016	Household and similar electrical appliances - Safety - Part 2 - 27 : Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-28 : 2008	Household and similar electrical appliances - Safety - Part 2 - 28 : Particular requirements for sewing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-29 : 2016	Household and similar electrical appliances - Safety - Part 2 - 29 : Particular requirements for battery chargers	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-3 : 2015	Household and similar electrical appliances - Safety - Part 2 - 3 : Particular requirements for electric irons	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-30 : 2016	Household and similar electrical appliances - Safety - Part 2 - 30 : Particular requirements for room heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-31 : 2016	Household and similar electrical appliances - Safety - Part 2 - 31 : Particular requirements for range hoods	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-32 : 2013	Household and similar electrical appliances - Safety - Part 2 - 32 : Particular requirements for massage appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-34 : 2016	Household and similar electrical appliances - Safety - Part 2 - 34: Particular requirements for motor - compressors	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-35 : 2016	Household and similar electrical appliances - Safety - Part 2 - 35 : Particular requirements for instantaneous water heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-36 : 2017	Household and similar electrical appliances - Safety - Part 2 - 36 : Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-37 : 2017	Household and similar electrical appliances - Safety - Part 2 - 37 : Particular requirements for commercial electric deep fat fryers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-38 : 2017	Household and similar electrical appliances - Safety - Part 2 - 38 : Particular requirements for commercial electric griddles and griddle grills	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-39 : 2017	Household and similar electrical appliances - Safety - Part 2 - 39 : Particular requirements for commercial electric multi-purpose cooking pans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-4 : 2017	Household and similar electrical appliances - Safety - Part 2 - 4 :Particular requirements for spin extractors	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-40 : 2016	Household and similar electrical appliances - Safety - Part 2 - 40 :Particular requirements for electrical heat pumps, air - conditioners and dehumidifiers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-41 : 2012	Household and similar electrical appliances - Safety - Part 2 - 41 : Particular requirements for pumps	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-42 : 2017	Household and similar electrical appliances - Safety - Part 2 - 42 : Particular requirements for commercial electric forced convection ovens, steam cookers and steam - convection ovens	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-43 : 2008	Household and similar electrical appliances - Safety - Part 2 - 43 : Particular requirements for clothes dryers and towel rails	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-44 : 2012	Household and similar electrical appliances - Safety - Part 2 - 44 : Particular requirements for ironers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-45 : 2012	Household and similar electrical appliances - Safety - Part 2 - 45 : Particular requirements for portable heating tools and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-47 : 2017	Household and similar electrical appliances - Safety - Part 2 - 47 : Particular requirements for commercial electric boiling pans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-48 : 2017	Household and similar electrical appliances - Safety - Part 2 - 48 : Particular requirements for commercial electric grillers and toasters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-49 : 2017	Household and similar electrical appliances - Safety - Part 2 - 49 : Particular requirements for commercial electric appliances for keeping food and crockery warm	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-5 : 2012	Household and similar electrical appliances - Safety - Part 2 - 5 : Particular requirements for dishwashers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-50 : 2017	Household and similar electrical appliances - Safety - Part 2 - 50 : Particular requirements for commercial electric bains-marie	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-51 : 2012	Household and similar electrical appliances - Safety - Part 2 - 51 : Particular requirements for stationary circulation pumps for heating and service water installations	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-52 : 2008	Household and similar electrical appliances - Safety - Part 2 - 52 : Particular requirements for oral hygiene appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-53 : 2017	Household and similar electrical appliances - Safety - Part 2 - 53 : Particular requirements for sauna heating appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-54 : 2015	Household and similar electrical appliances - Safety - Part 2 - 54 : Particular requirements for surface-cleaning appliances for household use employing liquids or steam	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-55 : 2008	Household and similar electrical appliances - Safety - Part 2 - 55 : Particular requirements for electrical appliances for use with aquariums and garden ponds	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-56 : 2014	Household and similar electrical appliances - Safety - Part 2 - 56 : Particular requirements for projectors and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-58 : 2015	Household and similar electrical appliances - Safety - Part 2 - 58 : Particular requirements for commercial electric dishwashing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-59 : 2009	Household and similar electrical appliances - Safety - Part 2 - 59 : Particular requirements for insect killers	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-6 : 2014	Household and similar electrical appliances - Safety - Part 2 - 6 : Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-60 : 2008	Household and similar electrical appliances - Safety - Part 2 - 60 : Particular requirements for whirlpool baths and whirlpool spas	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-61 : 2009	Household and similar electrical appliances - Safety - Part 2 - 61 : Particular requirements for thermal storage room heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-62 : 2008	Household and similar electrical appliances - Safety - Part 2 - 62 : Particular requirements for commercial electric rinsing sinks	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-64 : 2017	Household and similar electrical appliances - Safety - Part 2 - 64 : Particular requirements for commercial electric kitchen machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-65 : 2015	Household and similar electrical appliances - Safety - Part 2 - 65 : Particular requirements for air-cleaning appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-66 : 2012	Household and similar electrical appliances - Safety - Part 2 - 66 : Particular requirements for water - bed heaters	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-67 : 2016	Household and similar electrical appliances - Safety - Part 2 - 67 : Particular requirements for floor treatment and floor cleaning machines, for industrial and commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-68 : 2016	Household and similar electrical appliances - Safety - Part 2 - 68 : Particular requirements for spray extraction appliances, for industrial and commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-69 : 2016	Household and similar electrical appliances - Safety - Part 2 - 69 : Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-7 : 2016	Household and similar electrical appliances - Safety - Part 2 - 7 : Particular requirements for washing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-70 : 2013	Household and similar electrical appliances - Safety - Part 2 - 70 : Particular requirements for milking machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-71 : 2012	Household and similar electrical appliances - Safety - Part 2 - 71 : Particular requirements for electrical heating appliances for breeding and rearing animals	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-72 : 2016	Household and similar electrical appliances - Safety - Part 2 - 72 : Particular requirements for automatic machines for floor treatment for commercial and industrial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-73 : 2009	Household and similar electrical appliances - Safety - Part 2 - 73 : Particular requirements for fixed immersion heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-74 : 2009	Household and similar electrical appliances - Safety - Part 2 - 74 : Particular requirements for portable immersion heaters	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-75 : 2015	Household and similar electrical appliances - Safety - Part 2 - 75 : Particular requirements for commercial dispensing appliances and vending machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-76 : 2013	Household and similar electrical appliances - Safety - Part 2 - 76 : Particular requirements for electric fence energizers	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-77 : 2002	Household and similar electrical appliances - Safety - Part 2 - 77 : Particular requirements for pedestrian controlled mains - operated lawnmowers	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-78 : 2008	Household and similar electrical appliances - Safety - Part 2 - 78 : Particular requirements for outdoor barbecues	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-79 : 2016	Household and similar electrical appliances - Safety - Part 2 - 79 : Particular requirements for high pressure cleaners and steam cleaners	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-8 : 2015	Household and similar electrical appliances - Safety - Part 2 - 8 : Particular requirements for shavers, hair clippers and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-80 : 2015	Household and similar electrical appliances - Safety - Part 2 - 80 : Particular requirements for fans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-81 : 2017	Household and similar electrical appliances - Safety - Part 2 - 81 : Particular requirements for foot warmers and heating mats	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-82 : 2015	Household and similar electrical appliances - Safety - Part 2 - 82 : Particular requirements for amusement machines and personal service machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-84 : 2013	Household and similar electrical appliances - Safety - Part 2 - 84 : Particular requirements for toilets	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-85 : 2017	Household and similar electrical appliances - Safety - Part 2 - 85 : Particular requirements for fabric steamers	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-88 : 2002	Household and similar electrical appliances - Safety - Part 2 - 88 : Particular requirements for humidifiers intended for use with heating, ventilation, or air-conditioning systems	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-89 : 2015	Household and similar electrical appliances - Safety - Part 2 - 89 : Particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-9 : 2016	Household and similar electrical appliances - Safety - Part 2 - 9 :Particular requirements for grills, toasters and similar portable cooking appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC60335-2-90 : 2015	Household and similar electrical appliances - Safety - Part 2 - 90 :Particular requirements for commercial microwave ovens	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-91 : 2008	Household and similar electrical appliances - Safety - Part 2 - 91 : Particular requirements for walk - behind and hand - held lawn trimmers and lawn edge trimmers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-92 : 2002	Household and similar electrical appliances - Ssafety - Part 2 - 92 : Particular requirements for Pedestrian - conrolledmains - operated lawn scarifiers and aerators	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-94 : 2008	Household and similar electrical appliances - Safety - Part 2 - 94 : Particular requirements for scissors type grass shears	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-95 : 2017	Household and similar electrical appliances - Safety - Part 2 - 95 : Particular requirements for drives for vertically moving garage doors for residential use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-96 : 2009	Household and similar electrical appliances - Safety - Part 2 - 96 : Particular requirements for flexible sheet heating elements for room heating	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-97 : 2016	Household and similar electrical appliances - Safety - Part 2 - 97 : Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-98 : 2008	Household and similar electrical appliances - Safety - Part 2 - 98 : Particular requirements for humidifiers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
IEC 60335-2-100 : 2002	Household and similar electrical appliances - safety - Part 2 - 100 : Particular requirements for hand - held mains operated garden blowers, vacuums and blower vacuums	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60335-2-101 : 2014	Household and similar electrical appliances - safety - Part 2 - 101 : Particular requirements for vaporizers	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-102 : 2012	Household and similar electrical appliances - safety - Part 2 - 102 : Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-103 : 2015	Household and similar electrical appliances - safety - Part 2 - 103 : Particular requirements for dirves for gates, doors and windows	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-104 : 2003	Household and similar electrical appliances - safety - Part 2 - 104 : Particular requirements for applainces to recover and/or recycle refrigerant from air conditioning and refrigeration equipment	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60335-2-105 : 2016	Household and similar electrical appliances - safety - Part 2 - 105 : Particular requirements for multifunctional shower cabonets	a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 60688 : 2002	Electrical measuring transducers for converting a.c. electrical quantities to analogue or digital signals	input frequency 5 Hz ~1 500 Hzz	N
IEC 60825-1 : 2007	Safety of laser products - Part 1 : Equipment classification and requirements	200 nm ~ 2 100 nm 0.3 nW ~ 10 mW 10 nW ~ 200 W	N
IEC 60825-1 : 2014	Safety of laser products - Part 1 : Equipment classification and requirements	200 nm ~ 2 100 nm 0.3 nW ~ 10 mW 10 nW ~ 200 W	N
IEC 60825-2 : 2010	Safety of laser products - Part 2 : Safety of optical fiber communication systems	200 nm ~ 2 100 nm 0.3 nW ~ 10 mW 10 nW ~ 200 W	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
IEC 60950-1: 2009	Information technology equipment - Safety - Part 1 : General requirements	rated voltage 600 V or less	N
IEC 60950-1: 2013	Information technology equipment - Safety - Part 1 : General requirements	정격전압 600 V 이하	N
IEC 62233 : 2005	Measurement methods for electromagnetic field of household appliances and similar apparatus with regard to human exposure	electromagnetic field 300 GHz or less	N
K 10001 : 2006	Hand - held telephone battery chargers	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10002 : 2006	Particular requirements for half baths and similar equipment	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10003 : 2006	Particular requirements for foot baths and similar equipment	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10004 : 2008	Particular requirements for electrical beds and similar equipment	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10007 : 2008	Particular requirements for water purifier	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10008 : 2011	Particular requirements for water ionizer	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10009 : 2008	Particular requirements for supersonic washers	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10010 : 2008	Particular requirements for sprout and bean sprout growing devices	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10011 : 2011	Particular requirements for electrical door look	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10012 : 2013	Particular requirements for health appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10013 : 2013	Particular requirements for anti - freezing appliances of a waterworks	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10014 : 2008	Three phase squirrel cage, Single phase induction motors and similar rotating appliances for general purpose	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
K 10015 : 2008	Particular requirements for wet towel rolling devices	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10016 : 2008	Particular requirements for wet towel wrapping devices	a.c. 250 V or less 50 Hz / 60 Hz	N
K 10017 : 2008	Particular requirements for Pat shower appliances for pats	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 10027 : 2015	Safety of household and similar electrical appliances - Particular requirements for heating boards	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 10029 : 2017	Safety of household and similar electrical appliances - Particular requirements for electrical mosquito swatter	d.c. 42 V or less	N
KC 60065 : 2015	Audio, video and similar electronic apparatus - Safety requirements	a.c. 250 V or less three phases 433 V or less, 50 Hz / 60 Hz	N
KC 60335-1 : 2016	Household and similar electrical appliances - Safety - Part 1 : General requirements	a.c. 250 V or less three phases 433 V or less, 50 Hz / 60 Hz	N
KC 60335-2-10 : 2015	Household and similar electrical appliances - Safety - Part 2 - 10 : Particular requirements for floor treatment machines and wet scrubbing machines	rated voltage 600 V or less	N
KC 60335-2-11 : 2015	Household and similar electrical appliances - Safety - Part 2 - 11 : Particular requirements for tumble dryers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-12 : 2015	Household and similar electrical appliances - Safety - Part 2 - 12 : Particular requirements for warming plates and similar appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-13 : 2016	Household and similar electrical appliances - Safety - Part 2 - 13 : Particular requirements for deep fat fryers, frying pans and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-14 : 2016	Household and similar electrical appliances - Safety - Part 2 - 14 : Particular requirements for kitchen machines	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-15 : 2015	Household and similar electrical appliances - Safety - Part 2 - 15 : Particular requirements for appliances for heating liquids	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-16 : 2015	Household and similar electrical appliances - Safety - Part 2 - 16 : Particular requirements for food waste disposers	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-17 : 2015	Household and similar electrical appliances - Safety - Part 2 - 17 : Particular requirements for blanks, pads and similar flexible heating appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-2 : 2015	Household and similar electrical appliances - Safety - Part 2 - 2 : Particular requirements for vacuum cleaners and water - suction cleaning appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-21 : 2015	Household and similar electrical appliances - Safety - Part 2 - 21 : Particular requirements for storage water heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-23 : 2015	Household and similar electrical appliances - Safety - Part 2 - 23 : Particular requirements for skin or hair care	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-24 : 2015	Household and similar electrical appliances - Safety - Part 2 - 24 : Particular requirements for refrigerating appliances, ice - cream appliances and ice makers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-25 : 2015	Household and similar electrical appliances - Safety - Part 2 - 25 : Particular requirements for microwave ovens, including combination microwave ovens	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-26 : 2015	Household and similar electrical appliances - Safety - Part 2-26: Particular requirements for clocks	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-27 : 2015	Household and similar electrical appliances - Safety - Part 2 - 27 : Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-28 : 2015	Household and similar electrical appliances - Safety - Part 2 - 28 : Particular requirements for sewing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-29 : 2015	Household and similar electrical appliances - Safety - Part 2 - 29 : Particular requirements for battery chargers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-3 : 2016	Household and similar electrical appliances - Safety - Part 2 - 3 : Particular requirements for electric irons	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-30 : 2016	Household and similar electrical appliances - Safety - Part 2 - 30 : Particular requirements for room heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-31 : 2015	Household and similar electrical appliances - Safety - Part 2 - 31 : Particular requirements for range hoods and other cooking fume extractors	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-32 : 2015	Household and similar electrical appliances - Safety - Part 2 - 32 : Particular requirements for massage appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-34 : 2015	Household and similar electrical appliances - Safety - Part 2 - 34 : Particular requirements for motor - compressors	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-35 : 2015	Household and similar electrical appliances - Safety - Part 2 - 35 : Particular requirements for instantaneous water heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-36 : 2015	Household and similar electrical appliances - Safety - Part 2 - 36 : Particular requirements for commercial electric cooking range, oven, hobs and hob elements	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-37 : 2015	Household and similar electrical appliances - Safety - Part 2 - 37 : Particular requirements for commercial electric deep fat fryers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-38 : 2015	Household and similar electrical appliances - Safety - Part 2 - 38 : Particular requirements for commercial electric griddles and griddle grills	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-39 : 2015	Household and similar electrical appliances - Safety - Part 2 - 39 : Particular requirements for commercial electric multi - purpose cooking pans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-4 : 2016	Household and similar electrical appliances - Safety - Part 2 - 4 : Particular requirements for spin extractors	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-40 : 2015	Household and similar electrical appliances - Safety - Part 2 - 40 : Particular requirements for electrical heat pumps, air - conditioners and dehumidifiers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-41 : 2015	Household and similar electrical appliances - Safety - Part 2 - 41 : Particular requirements for pumps	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-42 : 2015	Household and similar electrical appliances - Safety - Part 2 - 42 : Particular requirements for commercial electric forced convection ovens, steam cookers and steam - convection ovens	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-43 : 2015	Household and similar electrical appliances - Safety - Part 2 - 43 : Particular requirements for clothes dryers and towel rails	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-44 : 2015	Household and similar electrical appliances - Safety - Part 2 - 44 : Particular requirements for ironers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-45 : 2016	Household and similar electrical appliances - Safety - Part 2 - 45 : Particular requirements for portable heating tools and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-47 : 2015	Household and similar electrical appliances - Safety - Part 2 - 47 : Particular requirements for commercial electric boiling pans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-48 : 2015	Household and similar electrical appliances - Safety - Part 2 - 48 : Particular requirements for commercial electric grillers and toasters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-49 : 2015	Household and similar electrical appliances - Safety - Part 2 - 49 : Particular requirements for commercial electric appliances for keeping food and crockery warm	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-5 : 2016	Household and similar electrical appliances - Safety - Part 2 - 5 : Particular requirements for dishwashers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-50 : 2015	Household and similar electrical appliances - Safety - Part 2 - 50 : Particular requirements for commercial electric bains-marie	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-51 : 2015	Household and similar electrical appliances - Safety - Part 2 - 51 : Particular requirements for stationary circulation pumps for heating and service water installations	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-52 : 2015	Household and similar electrical appliances - Safety - Part 2 - 52 : Particular requirements for oral hygiene appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-53 : 2015	Household and similar electrical appliances - Safety - Part 2 - 53 : Particular requirements for sauna heating appliances and infrared cabins	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-54 : 2015	Household and similar electrical appliances - Safety - Part 2 - 54 : Particular requirements for surface-cleaning appliances for household use employing liquids or steam	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-55 : 2015	Household and similar electrical appliances - Safety - Part 2 - 55 : Particular requirements for electrical appliances for use with aquariums and garden ponds	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-56 : 2015	Household and similar electrical appliances - Safety - Part 2 - 56 : Particular requirements for projectors and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
K 60335-2-57 : 2000	Household and similar electrical appliances - Safety - Part 2 - 57 : Particular requirements for ice - cream appliances with incorporated motor - compressors	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-58 : 2015	Household and similar electrical appliances - Safety - Part 2 - 58 : Particular requirements for commercial electric dishwashing machines	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-59 : 2015	Household and similar electrical appliances - Safety - Part 2 - 59 : Particular requirements for insect killers	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-6 : 2016	Household and similar electrical appliances - Safety - Part 2 - 6 : Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-60 : 2015	Household and similar electrical appliances - Safety - Part 2 - 60 : Particular requirements for whirlpool baths and whirlpool spas	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-61 : 2015	Household and similar electrical appliances - Safety - Part 2 - 61 : Particular requirements for thermal storage room heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-62 : 2015	Household and similar electrical appliances - Safety - Part 2 - 62 : Particular requirements for commercial electric rinsing sinks	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-63 : 2014	Household and similar electrical appliances - Safety - Part 2 - 63 : Particular requirements for commercial water boilers and liquid heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-64 : 2015	Household and similar electrical appliances - Safety - Part 2 - 64 : Particular requirements for commercial electric kitchen machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-65 : 2015	Household and similar electrical appliances - Safety - Part 2 - 65 : Particular requirements for air-cleaning appliances	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-66 : 2015	Household and similar electrical appliances - Safety - Part 2 - 66 : Particular requirements for water - bed heaters	a.c. 250 V or less 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-67 : 2015	Household and similar electrical appliances - Safety - Part 2 - 67 : Particular requirements for floor treatment machines, for commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-68 : 2015	Household and similar electrical appliances - Safety - Part 2 - 68 : Particular requirements for spray extraction machines, for commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-69 : 2015	Household and similar electrical appliances - Safety - Part 2 - 69 : Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-7 : 2015	Household and similar electrical appliances - Safety - Part 2 - 7 : Particular requirements for washing machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-70 : 2015	Household and similar electrical appliances - Safety - Part 2 - 70 : Particular requirements for milking machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-71 : 2015	Household and similar electrical appliances - Safety - Part 2 - 71 : Particular requirements for electrical heating appliances for breeding and rearing animals	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-72 : 2015	Household and similar electrical appliances - Safety - Part 2 - 72 : Particular requirements for floor treatment machines with or without traction drive, for commercial use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-73 : 2015	Household and similar electrical appliances - Safety - Part 2 - 73 : Particular requirements for fixed immersion heaters	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-74 : 2015	Household and similar electrical appliances - Safety - Part 2 - 74 : Particular requirements for portable immersion heaters	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-75 : 2015	Household and similar electrical appliances - Safety - Part 2 - 75 : Particular requirements for commercial dispensing appliances and vending machines	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-76 : 2015	Household and similar electrical appliances - Safety - Part 2 - 76 : Particular requirements for electric fence energizers	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-77 : 2015	Household and similar electrical appliances - Safety - Part 2 - 77 : Particular requirements for pedestrian controlled mains - operated lawn mowers	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-78 : 2015	Household and similar electrical appliances - Safety - Part 2 - 78 : Particular requirements for outdoor barbecues	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-79 : 2015	Household and similar electrical appliances - Safety - Part 2 - 79 : Particular requirements for high pressure cleaners and steam cleaners	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-8 : 2016	Household and similar electrical appliances - Safety - Part 2 - 8 : Particular requirements for shavers, hair clippers and similar appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-80 : 2015	Household and similar electrical appliances - Safety - Part 2 - 80 : Particular requirements for fans	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
K 60335-2-81 : 2009	Household and similar electrical appliances - Safety - Part 2 - 81 : Particular requirements for foot warmers and heating mats	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KC 60335-2-82 : 2015	Household and similar electrical appliances - Safety - Part 2 - 82 : Particular requirements for amusement machines and personal service machines	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-84 : 2016	Household and similar electrical appliances - Safety - Part 2 - 84 : Particular requirements for toilet appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
K 60335-2-85 : 2007	Household and similar electrical appliances - Safety - Part 2 - 85 : Particular requirements for fabric steamers	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-88 : 2015	Household and similar electrical appliances - Safety - Part 2 - 88 : Particular requirements for humidifiers intended for use with heating, ventilation, or air-conditioning systems	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-89 : 2015	Household and similar electrical appliances - Safety - Part 2 - 88 : Particular requirements for commercial refrigerating appliance with an incorporated or remote refrigerant unit or compressor	a.c. 250 V or less 50 Hz / 60 Hz	N
K 60335-2-9 : 2013	Household and similar electrical appliances - Safety - Part 2 - 9 : Particular requirements for grills, toasters and similar portable cooking appliances	a.c. 250 V or less 50 Hz / 60 Hz	N
KC 60335-2-90 : 2015	Household and similar electrical appliances - Safety - Part 2 - 90 : Particular requirements for commercial microwave ovens	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-91 : 2015	Household and similar electrical appliances - Safety - Part 2 - 91 : Particular requirements for walk - behind and hand - held lawn trimmers and lawn edge trimmers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
K 60335-2-92 : 2004	Household and similar electrical appliances - safety - Part 2 - 92 : Particular requirements for Pedestrian - conrolled mains - operated lawn scarifiers and aerators	a.c. 250 V or less 50 Hz / 60 Hz	N
K 60335-2-94 : 2004	Household and similar electrical appliances - safety - Part 2 - 94 : Particular requirements for Scissors type glass shears	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-95 : 2015	Household and similar electrical appliances - Safety - Part 2 - 95 : Particular requirements for drives for vertically moving garage doors for residential use	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-97 : 2015	Household and similar electrical appliances - Safety - Part 2 - 97 : Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-98 : 2015	Household and similar electrical appliances - Safety - Part 2 - 98 : Particular requirements for humidifiers	a.c. 250 V or less three phases 480 V or less, 50 Hz / 60 Hz	N
KC 60335-2-101 : 2015	Household and similar electrical appliances - Safety - Part 2 - 101 : Particular requirements for vaporizers	a.c. 250 V or less 50 Hz / 60 Hz	N
K 60950-1: 2011	Information technology equipment - Safety - Part 1 : General requirements	rated voltage 600 V or less	N
K 70000 : 2008	Household and similar electrical appliances - safety - Particular requirements for Sterilizers	a.c. 250 V or less 50 Hz / 60 Hz	N
KS C 1708 : 2005	Electrical measuring transducers for converting A.C.electrical quantities into D.C. electrical quantities	rated voltage 600 V or less,	N
KS C 4310 : 2003	Uninterruptible power system	single/three phases 1 000 V or less	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C 6306 : 1978	Horn type loud speakers	frequency 20 Hz - 20 ㎑	N
KS C 9101 : 2014	Electric vacuum cleaners	rating 100 W or more 2 500 W or less, 60 Hz	N
KS C 9102 : 2002	Cone Type Loudspeakers	frequency 20 Hz ~ 20 ㎑	N
KS C 9103 : 2002	Speaker system for audio set	frequency 20 Hz ~ 20 ㎑	N
KS C 9206 : 2013	Electric toasters and roasters for household	a.c. 300 V or less 2 000 W or less, 60 Hz	N
KS C 9209 : 2013	Hair curling appliances and hand - hold hair dryers	1 000 W or less 60 Hz	N
KS C 9220 : 2013	Electric heated resin sheet and heated over - blankets and under - blankets	a.c. 220 V, 60 Hz	N
KS C 9301 : 2013	Electric fans and ceiling fans	a.c. 220 V, 60 Hz	N
KS C 9304 : 2002	Ventilating fans	a.c. 220 V, 60 Hz	N
KS C 9306 : 2011	Air conditioners	1.3 kW or less, 60 Hz cooling capacity 35 000 W	N
KS C 9309 : 2013	Electric pots and water heaters	a.c. 300 V or less, 1.5 kW or less, 60 Hz	N
KS C 9310 : 2013	Electric rice - cookers and rice jars with electric thermal control	a.c. 300 V or less, 2 kW or less, 60 Hz	N
KS C 9313 : 2013	Microwave ovens	2.450 ㎒ high frequency, 1.0 kW or less, 60 Hz	N
KS C 9314 : 2013	Air cleaners	a.c. 250 V or less three phases 480 V or less, 60 Hz	N
KS C 9315 : 2013	Drinking - water coolers	500 W or less, 60 Hz	N
KS C 9317 : 2013	Dehumidifiers	500 W or less, 60 Hz	N
KS C 9319 : 2013	Tumbler type electric clothe dryers	5 kW or less, 60 Hz	N
KS C 9321 : 2014	Electrical storage box for kimchi	a.c. 250 V or less three phases 480 V or less, 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C 9608 : 2013	Electric washing machines	a.c. 250 V or less three phases 480 V or less, 60 Hz	N
KS C 9805 : 2013	Electric storage water boilers for household purposes and storage tank water heaters	30 kW or less, 60 Hz	N
KS C 9806 : 2014	Digital door lock	d.c., a.c. power supply, battery equipment	N
KS C IEC 60268-5 : 2010	Sound system equipment - Part 5 : Loudspeakers	frequency 20 Hz ~ 20 ㎑	N
KS C IEC 60335-1 : 2013	Household and similar electrical appliances - Safety - Part 1 : General requirements	a.c. 250 V or less three phases 480 V or less, 60 Hz	N
KS C IEC 60335-2-10 : 2013	Household and similar electrical appliances - Safety - Part 2 - 10 : Particular requirements for floor treatment machines and wet scrubbing machines	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-11 : 2014	Household and similar electrical appliances - Safety - Part 2 - 11 : Particular requirements for tumble dryers	a.c. 250 V or less three phases 480 V or less, 60 Hz	N
KS C IEC 60335-2-12 : 2013	Household and similar electrical appliances - Safety - Part 2 - 12 : Particular requirements for warming plates and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-13 : 2013	Household and similar electrical appliances - Safety - Part 2 - 13 : Particular requirements for deep fat fryers, frying pans and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-14 : 2013	Household and similar electrical appliances - Safety - Part 2 - 14 : Particular requirements for kitchen machines	a.c. 250 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-15 : 2012	Household and similar electrical appliances - Safety - Part 2 - 15 : Particular requirements for appliances for heating liquids	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-16 : 2014	Household and similar electrical appliances - Safety - Part 2 - 16 : Particular requirements for food waste disposers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-17 : 2014	Household and similar electrical appliances - Safety - Part 2 - 17 : Particular requirements for blanke	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-2 : 2014	Household and similar electrical appliances - Safety - Part 2 - 2 : Particular requirements for vacuum cleaners and water - suction cleaning appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-21 : 2014	Household and similar electrical appliances - Safety - Part 2 - 21 : Particular requirements for storage water heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-23 : 2012	Household and similar electrical appliances - Safety - Part 2 - 23 : Particular requirements for appliances for skin or hair care	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-24 : 2013	Amendment 1 - Household and similar electrical appliances - Safety - Part 2 - 24 : Particular requirements for refrigerating appliances, ice - cream appliances and ice-makers	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-25 : 2012	Household and similar electrical appliances - Safety - Part 2 - 25 : Particular requirements for microwave ovens, including combination microwave ovens	a.c. 250 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-26 : 2013	Household and similar electrical appliances - Safety - Part 2 - 26 : Particular requirements for clocks	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-27 : 2013	Household and similar electrical appliances - Safety - Part 2 - 27 : Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-28 : 2013	Household and similar electrical appliances - Safety - Part 2 - 28 : Particular requirements for sewing machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-29 : 2013	Household and similar electrical appliances - Safety - Part 2 - 29 : Particular requirements for battery chargers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-3 : 2013	Household and similar electrical appliances - Safety - Part 2 - 3 : Particular requirements for electric irons	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-30 : 2013	Household and similar electrical appliances - Safety - Part 2 - 30 : Particular requirements for room heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-31 : 2014	Household and similar electrical appliances - Safety - Part 2 - 31 : Particular requirements for range hoods	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-32 : 2013	Household and similar electrical appliances - Safety - Part 2 - 32 : Particular requirements for massage appliances	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-34 : 2012	Household and similar electrical appliances - Safety - Part 2 - 34 : Particular requirements for motor - compressors	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-35 : 2014	Household and similar electrical appliances - Safety - Part 2 - 35 : Particular requirements for instantaneous water heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-36 : 2013	Household and similar electrical appliances - Safety - Part 2 - 36 : Particular requirements for instantaneous water heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-37 : 2014	Household and similar electrical appliances - Safety - Part 2 - 37 : Particular requirements for commercial electric deep fat fryers	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-38 : 2013	Household and similar electrical appliances - Safety - Part 2 - 38 : Particular requirements for commercial electric griddles and griddle grills	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-39 : 2014	Household and similar electrical appliances - Safety - Part 2 - 39 : Particular requirements for commercial electric multi - purpose cooking pans	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-4 : 2013	Household and similar electrical appliances - Safety - Part 2 - 4 : Particular requirements for spin extractors	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-40 : 2007	Household and similar electrical appliances - Safety - Part 2 - 40 : Particular requirements for electrical heat pumps, air - conditioners and dehumidifiers	a.c. 250 V or less, three phases 600 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-41 : 2014	Household and similar electrical appliances - Safety - Part 2 - 41 : Particular requirements for pumps	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-42 : 2013	Household and similar electrical appliances - Safety - Part 2 - 42 : Particular requirements for commercial electric forced convection ovens, steam cookers and steam - convection ovens	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-43 : 2013	Household and similar electrical appliances - Safety - Part 2 - 43 : Particular requirements for clothes dryers and towel rails	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-44 : 2014	Household and similar electrical appliances - Safety - Part 2 - 44 : Particular requirements for ironers	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-45 : 2013	Household and similar electrical appliances - Safety - Part 2 - 45 : Particular requirements for portable heating tools and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-47 : 2013	Household and similar electrical appliances - Safety - Part 2 - 47 : Particular requirements for commercial electric boiling pans	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-48 : 2013	Household and similar electrical appliances - Safety - Part 2 - 48 : Particular requirements for commercial electric grillers and toasters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-49 : 2013	Household and similar electrical appliances - Safety - Part 2 - 49 : Particular requirements for commercial electric hot cupboards	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-5 : 2013	Household and similar electrical appliances - Safety - Part 2 - 5 : Particular requirements for dishwashers	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-50 : 2013	Household and similar electrical appliances - Safety - Part 2 - 50 : Particular requirements for commercial electric bains - marie	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-51 : 2014	Household and similar electrical appliances - Safety - Part 2 - 51 : Particular requirements for stationary circulation pumps for heating and service water installations	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-52 : 2013	Household and similar electrical appliances - Safety - Part 2 - 52 : Particular requirements for oral hygiene appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-53 : 2014	Household and similar electrical appliances - Safety - Part 2 - 53 : Particular requirements for sauna heating appliances and infrared cabins	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-54 : 2013	Household and similar electrical appliances - Safety - Part 2 - 54 : Particular requirements for surface - cleaning appliances for household use employing liquids or steam	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-55 : 2013	Household and similar electrical appliances - Safety - Part 2 - 55 : Particular requirements for electrical appliances for use with aquariums and garden ponds	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-56 : 2013	Household and similar electrical appliances - Safety - Part 2 - 56 : Particular requirements for projectors and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-58 : 2013	Household and similar electrical appliances - Safety - Part 2 - 58 : Particular requirements for commercial electric dishwashing machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-59 : 2013	Household and similar electrical appliances - Safety - Part 2 - 59 : Particular requirements for insect killers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-6 : 2013	Household and similar electrical appliances - Safety - Part 2 - 6 : Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-60 : 2013	Household and similar electrical appliances - Safety - Part 2 - 60 : Particular requirements for whirlpool baths	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-61 : 2013	Household and similar electrical appliances - Safety - Part 2 - 61 : Particular requirements for thermal storage room heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-62 : 2013	Household and similar electrical appliances - Safety - Part 2 - 62 : Particular requirements for commercial electric rinsing sinks	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-64 : 2013	Household and similar electrical appliances - Safety - Part 2 - 64 : Particular requirements for commercial electric kitchen machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-65 : 2017	Household and similar electrical appliances - Safety - Part 2 - 65 : Particular requirements for air-cleaning appliances	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-66 : 2014	Household and similar electrical appliances - Safety - Part 2 - 66 : Particular requirements for water - bed heaters	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-67 : 2017	Household and similar electrical appliances - Safety - Part 2 - 67 : Particular requirements for floor treatment and floor cleaning machines, for industrial and commercial use	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-68 : 2014	Household and similar electrical appliances - Safety - Part 2 - 68 : Particular requirements for spray extraction machines, for commercial use	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-69 : 2014	Household and similar electrical appliances - Safety - Part 2 - 69 : Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-7 : 2017	Household and similar electrical appliances - Safety - Part 2 - 7 : Particular requirements for washing machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-70 : 2013	Household and similar electrical appliances - Safety - Part 2 - 70 : Particular requirements for milking machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-71 : 2014	Household and similar electrical appliances - Safety - Part 2 - 71 : Particular requirements for electrical heating appliances for breeding and rearing animals	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-72 : 2017	Household and similar electrical appliances - Safety - Part 2 - 72 : Particular requirements for automatic machines for floor treatment for commercial and industrial use	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-73 : 2013	Household and similar electrical appliances - Safety - Part 2 - 73 : Particular requirements for fixed immersion heaters	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-74 : 2013	Household and similar electrical appliances - Safety - Part 2 - 74 : Particular requirements for portable immersion heaters	a.c. 250 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-75 : 2014	Household and similar electrical appliances - Safety - Part 2 - 75 : Particular requirements for commercial dispensing appliances and vending machines	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-76 : 2013	Household and similar electrical appliances - Safety - Part 2 - 76 : Particular requirements for electric fence energizers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-77 : 2014	Household and similar electrical appliances - Safety - Part 2 - 77 : Particular requirements for pedestrian controlled mains-operated lawnmowers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-78 : 2013	Amendment 1 - Household and similar electrical appliances - Safety - Part 2 - 78 : Particular requirements for outdoor barbecues	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-79 : 2014	Household and similar electrical appliances - Safety - Part 2 - 79 : Particular requirements for high pressure cleaners and steam cleaners	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-8 : 2013	Household and similar electrical appliances - Safety - Part 2 - 8 : Particular requirements for shavers, hair clippers and similar appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-80 : 2012	Household and similar electrical appliances - Safety - Part 2 - 80 : Particular requirements for fans	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-81 : 2017	Household and similar electrical appliances - Safety - Part 2 - 81 : Particular requirements for foot warmers and heating mats	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-82 : 2013	Household and similar electrical appliances - Safety - Part 2 - 82 : Particular requirements for amusement machines and personal service machines	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-84 : 2017	Household and similar electrical appliances - Safety - Part 2 - 84 : Particular requirements for toilets	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-85 : 2013	Household and similar electrical appliances - Safety - Part 2 - 85 : Particular requirements for fabric steamers	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-88 : 2014	Household and similar electrical appliances - Safety - Part 2 - 88 : Particular requirements for humidifiers intended for use with heating, ventilation, or air-conditioning systems	a.c. 250 V or less, three phases 600 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-9 : 2014	Household and similar electrical appliances - Safety - Part 2 - 9 : Particular requirements for grills, toasters and similar portable cooking appliances	a.c. 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-90 : 2013	Household and similar electrical appliances - Safety - Part 2 - 90 : Particular requirements for commercial microwave ovens	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-91 : 2013	Household and similar electrical appliances - Safety - Part 2 - 91 : Particular requirements for walk - behind and hand - held lawn trimmers and lawn edge	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-92 : 2014	Household and similar electrical appliances - Safety - Part 2 - 92 : Particular requirements for pedestrian - controlled mains - operated lawn scarifiers and aerators	a.c. 250 V or less, 50 Hz / 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60335-2-94 : 2014	Household and similar electrical appliances - Safety - Part 2 - 94 : Particular requirements for scissors type grass shears	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-95 : 2014	Household and similar electrical appliances - Safety - Part 2 - 95 : Particular requirements for drives for vertically moving garage doors for residential use	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-96 : 2012	Household and similar electrical appliances - Safety - Part 2 - 96 : Particular requirements for flexible sheet heating elements for room heating	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-97 : 2013	Household and similar electrical appliances - Safety - Part 2 - 97 : Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-98 : 2013	Household and similar electrical appliances - Safety - Part 2 - 98 : Particular requirements for humidifiers	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS C IEC 60335-2-101 : 2014	Household and similar electrical appliances - Safety - Part 2 - 101 : Particular requirements for vaporizers	(d.c / a.c.) 250 V or less, 50 Hz / 60 Hz	N
KS C IEC 60581-1 : 2003	High fidelity audio equipment and systems : Minimum performance requirements. - Part 1 : General	frequency: 20 Hz ~ 20 kHz	N
KS C IEC 60581-10 : 2003	High fidelity audio equipment and systems : Minimum performance requirements. - Part 10 : Headphones	frequency: 20 Hz ~ 20 kHz	N
KS C IEC 60581-5 : 2003	High fidelity audio equipment and systems : Minimum performance requirements. - Part 5 : Microphones	frequency: 20 Hz ~ 20 kHz	N
KS C IEC 60581-7 : 2003	High fidelity audio equipment and systems : Minimum performance requirements. - Part 7 : Loudspeakers	frequency: 20 Hz ~ 20 kHz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
KS C IEC 60825-1 : 2013	Safety of laser products - Part 1 : Equipment classification and requirements and user's guide	200 nm ~ 2 100 nm 0.3 nW ~ 10 mW 10 nW ~ 200 W	N
KS C IEC 60825-9 : 2002	Safety of laser products - Part 9 : Compilation of maximum permissible exposure to incoherent optical radiation	200 nm ~ 2 100 nm 0.3 nW ~ 10 mW 10 nW ~ 200 W	N
KS C IEC 9806 : 2009	Digital door lock	d.c., a.c. power supply, battery equipment	N
KS B 4058 : 2006	Electric bench grinders	a.c. 250 V or less, three phases 480 V or less, 50 Hz / 60 Hz	N
KS P 6108 : 2004	Blood and pharmacy storage electric refrigerator and freezers	(d.c. / a.c.) 250 V or less multiphase 500 V or less	N
KS P 6114 : 2006	Electric wheelchairs	(d.c. / a.c.) 250 V or less multiphase 500 V or less	N
KS X 5003 : 2001	Keyboard for personal computer	-	N
UL 60065 : 2015	Audio, video and similar electronic apparatus - Safety requirements	(d.c. / a.c.) 250 V or less three phases 433 V or less, 43 Hz ~ 67 Hz	N
UL 60950-1 : 2007	Information Technology Equipment - Safety - Part 1 : General Requirements	rated voltage 600 V or less , 50 Hz / 60 Hz	N
KC 10018 : 2015	Safety of household and similar electrical appliances - Particular requirements for electrical warm - water mattress and bed	a.c. 250 V or less 50 Hz/ 60 Hz	N
K 10019 : 2009	Safety of household and similar electrical appliances - Particular requirements for the electrical boiler of electrical warm - water mattress and bed	a.c. 250 V or less 50 Hz/ 60 Hz	N
K 10020 : 2010	Safety of household and similar electrical appliances - Particular requirements for electrical warmer(heating pad)	a.c. 250 V or less 50 Hz/ 60 Hz	N

No. KT005

03.007 Household and similar equipment

Test method	Standard designation	Test range	Field testing
K 62477-1	Safety requirements for power electronic converter systems and equipment Part 1 : General	rated power 100 kW or less	N
KS C IEC 62477-1 : 2014	Safety requirements for power electronic converter systems and equipment Part 1 : General	rated power 100 kW or less	N
IEC 62477-1 Ed. 1.0 b : 2012	Safety requirement for power electronic converter systems and equipment - Part 1 : General	rated power 100 kW or less	N
KC 61851-1 : 2015	Electric vehicle conductive charging system - Part 1 : General requirements	AC 1 000 V or less DC 1 500 V or less	N
KC 61851-22 : 2015	Electric vehicle conductive charging system - Part 22 : AC electric vehicle charging station	AC 1 000 V or less DC 1 500 V or less	N
KC 61851-23 : 2015	Electric vehicle conductive charging system - Part 23 : DC electric vehicle charging station	AC 1 000 V or less DC 1 500 V or less	N
IEC 61851-1 Ed. 3.0 b : 2017	Electric vehicle conductive charging system - Part 1 : General requirements	AC 1 000 V or less DC 1 500 V or less	N
IEC 61851-1 Ed. 2.0 b : 2010	Electric vehicle conductive charging system - Part 1 : General requirements	AC 1 000 V or less DC 1 500 V or less	N
IEC 61851-23 Ed. 1.0 b : 2014	Electric vehicle conductive charging system - Part 23 : DC electric vehicle charging station	AC 1 000 V or less DC 1 500 V or less	N
KS C IEC 62115 : 2007	Electric toys - Safety	d.c. 24 V or less, a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 62115 : 2011	Electric toys - Safety	d.c. 24 V or less, a.c. 250 V or less 50 Hz / 60 Hz	N
IEC 62368-1 : 2014	Audio/video, information and communication technology equipment - Part 1 : Safety requirements	600 V or less	N

No. KT005

03.008 Wired/Wireless telecommunication equipment

Test method	Standard designation	Test range	Field testing
RRA Notice 2015-23 (2015.11.18.)	Technical Requirements for Measurements of Specific Absorbtion Rate	Head SAR (300 MHz ~ 2.4 GHz) Body SAR (300 MHz ~ 2.4 GHz)	N
MSIT Notice 2017-10 (2017.09.01.)	Rules on radio equipment <Except> 7.6, 7.9, 7.10, 9, 10, 11, 12, 13, 14	3 Hz ~ 50 GHz 50 dBm -110 dBm ~ 30 dBm -110 dBm ~ 30 dBm)	N
IETF RFC 2544 : 1999	Benchmarking Methodology for Network Interconnect Devices <Exceptions> 26.4 Back-to-back frames 26.5 System recovery 26.6 Reset	IP Throughput : max 80 Gbps	N
IETF RFC 3511 : 2003	Benchmarking Methodology for Firewall Performance <Exceptions> 5.5 Denial of Service Handling 5.8 Illegal Traffic Handling 5.9 IP Fragmentation Handling	IP throughput : max 80Gbps TCP Connection Establishment Rate (CPS) : max 2 million Application Concurrent Flows : max 60 million	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
LED traffic signal light (by National Police Agency)	Guide of Standard for LED Traffic Signal Light	a.c. 600 V or less	N
Incandescent traffic signal light (by National Police Agency)	Guide of Standard for Incandescent Traffic Signal Light	a.c. 600 V or less	N
Count down pedestrian light (by National Police Agency)	Guide of Standard for Count Down Pedestrian Light	a.c. 600 V or less	N
Ministry of maritime affairs & fisheries notice No. 2017-133 (2017.09.26.)	Approval tests and verification standards of ships and ship materials	a.c. 600 V or less	N
	40. Safety light 48. Electricity navigation light 49. An incandescent lamp specialized in using a ship 50. Flash light 51. Maneuvering Signaling 57. Signal light 65. Interior light 67. Lifejacket light 114. Search light		
Ministry of Environment notice No. 2017-103 (2017.05.25)	Notification on revisions of subject products subject for environmental mark and verification Standard	-	N
	EL201 Fluorescent lamps	40 W or less	N
	EL202 Fluorescent lamps ballast	300 Vac or less	N
	EL203 Compact Fluorescent ballast lamps	5 W ~ 60 W	N
	EL204 Discharge Luminaires ballast	300 Vac or less	N
IEC 60061-1 : 1969 / Amd 56 : 2017	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1 : Lamp caps	Size range in Annex	N
IEC 60061-1S : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 1S : Lamp caps	Size range in Annex	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60061-1T : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 1T : Lamp caps	Size range in Annex	N
IEC 60061-1U : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 1U : Lamp caps	Size range in Annex	N
IEC 60061-1V: 1997	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 1V : Lamp caps	Size range in Annex	N
IEC 60061-2 : 1969 / Amd 52 : 2017	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2 : Lampholders	Size range in Annex	N
IEC 60061-2P : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 2P : Lampholders	Size range in Annex	N
IEC 60061-2Q : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 2Q : Lampholders	Size range in Annex	N
IEC 60061-2S : 1997	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 2S : Lampholders	Size range in Annex	N
IEC 60061-3 : 1969 / Amd 53 : 2017	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3 : Gauges	Size range in Annex	N
IEC 60061-3R : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 3R : Gauges	Size range in Annex	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60061-3S : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 3S : Gauges	Size range in Annex	N
IEC 60061-3T : 1996	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 3T : Gauges	Size range in Annex	N
IEC 60061-3U : 1997	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 3U : Gauges	Size range in Annex	N
IEC 60061-4 : 1990 / Amd 15 : 2017	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4 : Guidelines and general information	Size range in Annex	N
IEC 60061-4A : 1992	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 4A : Guidelines and general information	Size range in Annex	N
IEC 60061-4B : 1994	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 4B : Guidelines and general information	Size range in Annex	N
IEC 60061-4C : 1994	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 4C : Guidelines and general information	Size range in Annex	N
IEC 60061-4D : 1995	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 4D : Guidelines and general information	Size range in Annex	N
IEC 60064 : 1993 / Amd 5 : 2009	Tungsten filament lamps for domestic and similar general lighting purposes - Performance requirements	25 W ~ 200 W	N
IEC 60081 : 1997 / AMD6 : 2017	Double - capped fluorescent lamps - Performance specifications	25 W ~ 200 W	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60112 : 2003 AMD1 : 2009	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	-	N
IEC 60155 : 1993 AMD2 : 2006	Glow - starters for fluorescent lamps	1 000 V	N
IEC 60188 : 2001	High-pressure mercury vapour lamps - Performance specifications	-	N
IEC 60192 : 2001	Low-pressure sodium vapour lamps - Performance specifications	Related datasheet	N
IEC 60216-1 : 2013	Electrical insulating materials - Properties of thermal endurance - Part 1 : Ageing procedures and evaluation of test results	Related datasheet	N
IEC 60238 : 2004 AMD2 : 2011	Edison screw lampholders	E11, E12, E14, E17, E26, E27, E39, E40	N
IEC 60317-0-1 : 2013	Specifications for particular types of winding wires - Part 0 - 1 : General requirements - Enamelled round copper wire	conductor diameter 5.0 mm or less	N
IEC 60357 : 2002 Amd 3 : 2011	Tungsten halogen lamps (non vehicle) - Performance specifications	250 V or less	N
IEC 60360 : 1998 / COR1 : 1999	Standard method of measurement of lamp cap temperature rise	300 ℃	N
IEC 60400 : 2017	Lampholders for tubular fluorescent lamps and starterholders	1 000 V or less	N
IEC 60432-1 : 2005 Amd 2 : 2011	Incandescent lamps - Safety specifications - Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	200 W or less, (50 ~ 250) V	N
IEC 60432-2 : 1999 / Amd 2 : 2012	Incandescent lamps - Safety specifications - Part 2 : Tungsten halogen lamps for domestic and similar general lighting purposes	200 W or less, (50 ~ 250) V	N
IEC 60529 : 1989 / Amd 2 : 2013	Degrees of protection provided by enclosures(IP Code)	72 .5 kV , IP 68 or less	N
IEC 60570 : 2003 / AMD1 : 2017	Electrical supply track systems for luminaires.	class 1 440 V, class 3 25 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60598-1 : 2014 / AMD1 : 2017	Luminaires - Part 1 : General requirements and tests	1 000 V or less	N
IEC 60598-2-1 : 1979 / Amd 1 : 1987	Luminaires. Part 2 : Particular requirements. Section One : Fixed general purpose luminaires	1 000 V or less	N
IEC 60598-2-17 : 2017	Luminaires. Part 2 - 17 : Particular requirements. Section Seventeen - Luminaires for stage lighting, television and film studios (outdoor and indoor)	1 000 V or less	N
IEC 60598-2-18 : 1993 / COR1 : 2013	Luminaires - Part 2 : Particular requirements - Section 18 : Luminaires for swimming pools and similar applications	1 000 V or less	N
IEC 60598-2-19 : 1981 / AMD2 : 1997	Luminaires. Part 2: Particular requirements. Section Nineteen : Air - handling luminaires (safety requirements)	1 000 V or less	N
IEC 60598-2-2 : 2011	Luminaires - Part 2 - 2 : Particular requirements - Section 2 : Recessed luminaires	1 000 V or less	N
IEC 60598-2-20 : 2014 / COR1 : 2016	Luminaires - Part 2 - 20 : Particular requirements - Lighting chains	1 000 V or less	N
IEC 60598-2-22 : 2014 / AMD1 : 2017	Luminaires - Part 2 - 22 : Particular requirements - Luminaires for emergency lighting	1 000 V or less	N
IEC 60598-2-23 : 1996 + AMD1 : 2000 CSV	Luminaires - Part 2 : Particular requirements - Section 23 : Extra low voltage lighting systems for filament lamps	1 000 V or less	N
IEC 60598-2-24 : 2013	Luminaires - Part 2 - 24 : Particular requirements- Luminaires with limited surface temperatures	1 000 V or less	N
IEC 60598-2-25 : 1994 / AMD1 : 2004	Luminaires - Part 2 - 25 : Particular requirements - Luminaires for use in clinical areas of hospitals and health care buildings	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60598-2-3 : 2002 / AMD1 : 2011	Luminaires - Part 2 - 3 : Particular requirements - Luminaires for road and street lighting	1 000 V or less	N
IEC 60598-2-4 : 2017	Luminaires - Part 2 - 4 : Particular requirements - Portable general purpose luminaires	1 000 V or less	N
IEC 60598-2-5 : 2015	Luminaires - Part 2 - 5 : Particular requirements - Floodlights	1 000 V or less	N
IEC 60598-2-8 : 2013	Luminaires - Part 2 - 8 : Particular requirements - Handlamps	1 000 V or less	N
IEC 60598-2-9 : 1987 / AMD1 : 1993	Luminaires. Part 2 : Particular requirements. Section Nine : Photo and film luminaires (non - professional)	1 000 V or less	N
IEC 60630 : 1994 / Amd 7 : 2014	Maximum lamp outlines for incandescent lamps	Size range in Annex	N
IEC 60662 : 2011	High - pressure sodium vapour lamps - Performance specifications	300 ℃	N
IEC 60662 : 2011	High - pressure sodium vapour lamps	Related Datasheet	N
IEC 60664-1 : 2007	Insulation coordination for equipment within low - voltage systems - Part 1 : Principles, requirements and tests	1 000 Vac or less, 1 500 Vdc or less,	N
IEC 60682 : 1980 Amd 1 : 1987 Amd 2 : 1997	Standard method of measuring the pinch temperature of quartz - tungsten - halogen lamps	300 ℃	N
IEC 60691 : 2015 / COR : 2016	Thermal - links - Requirements and application guide	a.c. 600 V, 400 A or less	N
IEC 60695-2-10 : 2013	Fire Hazard testing - Part 2 - 10 : Glowing / hot-wire based test methods - Glow - wire apparatus and common test procedure	960 ℃	N
IEC 60695-2-11 : 2014	Fire hazard testing - Part 2 - 1 1: Glowing / hot - wire based test methods - Glow - wire flammability test method for end - products	960 ℃	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60695-2-12 : 2010 / AMD1 : 2014	Fire hazard testing - Part 2 - 12 : Glowing / hot - wire based test methods - Glow - wire flammability index (GWFI) test method for materials	960 ℃	N
IEC 60695-2-13 : 2010 / AMD1 : 2014	Fire hazard testing - Part 2 - 13 : Glowing / hot - wire based test methods - Glow - wire ignition temperature (GWIT) test method for materials	960 ℃	N
IEC 60695-11-5 : 2016	Fire hazard testing - Part 11 - 5 : Test flames - Needle - flame test method - Apparatus, confirmatory test arrangement and guidance	960 ℃	N
IEC 60730-2-3 : 2006	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	600 V, 63 A or less	N
IEC 60809 : 2014 / AMD1 : 2017	Lamps for road vehicles - Dimensional, electrical and luminous requirments	600 V or less	N
IEC 60810 : 2017	Lamps, light sources and LED packages for road vehicles - Performance requirements	600 V or less	N
IEC 60838-1 : 2016	Miscellaneous lampholders - Part 1 : General requirements and tests	250 V or less	N
IEC 60838-2-1 : 1994 / AMD2 : 2004 / COR : 2013	Miscellaneous lampholders - Part 2 : Particular requirements - Section 1 : Lampholders S14	250 V or less	N
IEC TR 60887 : 2010	Glass bulb designation system for lamps	1 000 V or less	N
IEC 60901 : 1996 / AMD 6 : 2014	Single - capped fluorescent lamps - Performance specifications	-	N
IEC 60921 : 2006	Ballasts for tubular fluorescent lamps - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
IEC 60923 : 2005 Amd 1 : 2006	Auxiliaries for lamps - Ballasts for discharge lamps(excluding tubular fluorescent lamps) - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
IEC 60927 : 2007 / Amd 1 : 2013	Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 60929 : 2015	AC and/or DC - supplied electronic control gear for tubular fluorescent lamps - Performance requirements	1 000 V or less	N
IEC 60968 : 2015	Self-ballasted lamps for general lighting services - Safety requirements	(100 ~ 250) V, 60 W or less	N
IEC 60969 : 1988 / AMD 2 : 2001	Self-ballasted lamps for general lighting services - Performance requirements	(100 ~ 250) V, 60 W or less	N
IEC 60983 : 1995 / AMD1 : 2005	Miniature lamps	25 W	N
IEC 61047 : 2004	DC or AC supplied electronic step - down convertors for filament lamps - Performance requirements	d.c. 250 V, a.c. 1 000 V or less	N
IEC 61048 : 2006 / Amd 1 : 2015	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	1 000 V or less	N
IEC 61049 : 1991	Capacitors for use in tubular fluorescent and other discharge lamp circuits. Performance requirements	1 000 V or less	N
IEC 61050 : 1991 Amd 1 : 1994	Transformers for tubular discharge lamps having a no - load output voltage exceeding 1 000 V(generally called neon - transformers). General and safety requirements	Unloading output 1 000 V ~ 10 000 V	N
IEC 61126 : 1992 / AMD 2 : 2005	Procedure for use in the preparation of maximum lamp outlines	1 000 V or less	N
IEC 61127 : 1992	High pressure xenon short arc lamps - Dimensional, electrical and photometric data and cap types	1 000 V or less	N
IEC 61167 : 2015	Metal halide lamps - Performance specification	1 000 V or less	N
IEC 61184 : 2017	Bayonet lampholders	250 V, Type B15d and B22d	N
IEC 61195 : 1999 / AMD2 : 2014	Double - capped fluorescent lamps - Safety specifications	Fa6, Fa8, G5, G13, R17d, W4.3X8.5d	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 61199 : 2011 / AMD2 : 2014	Single - capped fluorescent lamps - Safety specifications	2G7, 2GX7, GR8, 2GR10, G10q, GR10q, GX10q, GY10q, 2G11, G23, GX23, G24, GX24, GX32	N
IEC 61228 : 2008	Fluorescent ultraviolet lamps used for tanning - Measurement and specification method	200 nm ~ 1 000 nm	N
IEC 61231 : 2010 / AMD1 : 2013	International lamp coding system (ILCOS)	1 000 V or less	N
IEC TR 61341 : 2010	Method of measurement of centre beam intensity and beam angle(s) of reflector lamps	100 000 cd or less	N
IEC 61347-1 : 2015	Lamp controlgear - Part 1 : General and safety requirements	1 000 V or less	N
IEC 61347-2-1 : 2000 / AMD2 : 2013	Lamp controlgear - Part 2 - 1 : Particular requirements for starting devices (other than glow starters)	1 000 V or less	N
IEC 61347-2-10 : 2000 / AMD1 : 2008	Amendment 1 - Lamp controlgear - Part 2 - 10 : Particular requirements for electronic invertors and convertors for high - frequency operation of cold start tubular discharge lamps (neon tubes)	1 000 V or less	N
IEC 61347-2-11 : 2001	Lamp controlgear - Part 2 - 11 : Particular requirements for miscellaneous electronic circuits used with luminaires	1 000 V or less	N
IEC 61347-2-2 : 2011	Lamp controlgear - Part 2 - 2 : Particular requirements for d.c. or a.c. supplied electronic step - down convertors for filament lamps	1 000 V or less	N
IEC 61347-2-3 : 2011	Lamp controlgear - Part 2 - 3 : Particular requirements for a.c. supplied electronic ballasts for fluorescent lamps	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
IEC 61347-2-7 : 2011	Lamp controlgear - Part 2 - 7 : Particular requirements for d.c. supplied electronic ballasts for emergency lighting	1 000 V or less	N
IEC 61347-2-8 : 2000 / AMD1 : 2006	Lamp controlgear - Part 2 - 8 : Particular requirements for ballasts for fluorescent lamps	1 000 V or less	N
IEC 61347-2-9 : 2012	Lamp controlgear - Part 2 - 9 : Particular requirements for ballasts for discharge lamps(excluding fluorescent lamps)	1 000 V or less	N
IEC 61549 : 2003 AMD 3 : 2012	Miscellaneous lamps	Related Data - sheet	N
IEC 62031 : 2008 + AMD2 : 2014	LED modules for general lighting - Safety specifications	d.c. 250 V, a.c. 1 000 V or less	N
IEC 62035 : 2014	Discharge lamps (excluding fluorescent lamps) - Safety specifications	1 000 V or less	N
IEC 61347-2-13 : 2014	Lamp controlgear Part 2 - 13 : Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	1 000 V or less	N
IEC 62384 : 2011	DC or AC supplied electronic control gear for LED modulesPerformance requirements	1 000 V or less	N
IEC 60838-2-2 : 2006 + AMD1 : 2012	Miscellaneous lampholders - Part 2 - 2 : Particular requirements Connectors for LED - modules	1 000 V or less	N
K 10005 : 2011	Electrodeless fluorescent lamp safety requirements	1 000 W or less	N
KC 60061-1 : 2015	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1 : Lamp caps	Size range in Annex	N
K 60061-1S : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - - Part 1S : Lamp caps	Size range in Annex	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
K 60061-1T : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1T : Lamp caps	Size range in Annex	N
K 60061-1U : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1U : Lamp caps	Size range in Annex	N
K 60061-1V : 2001	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1V : Lamp caps	Size range in Annex	N
KC 60061-2 : 2015	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2 : Lampholders	Size range in Annex	N
K 60061-2P : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2P : Lampholders	Size range in Annex	N
K 60061-2Q : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2Q : Lampholders	Size range in Annex	N
K 60061-2S : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2S : Lampholders	Size range in Annex	N
KC 60061-3 : 2015	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3 : Gauges	Size range in Annex	N
K 60061-3R : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3R : Gauges	Size range in Annex	N
K 60061-3S : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3S : Gauges	Size range in Annex	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
K 60061-3T : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3T : Gauges	Size range in Annex	N
K 60061-3U : 2001	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3U : Gauges	Size range in Annex	N
KC 60061-4 : 2015	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4 : Guidelines and general information	Size range in Annex	N
K 60061-4A : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4A : Guidelines and general information	Size range in Annex	N
K 60061-4B : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4B : Guidelines and general information	Size range in Annex	N
K 60061-4C : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4C : Guidelines and general information	Size range in Annex	N
K 60061-4D : 2000	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4D : Guidelines and general information	Size range in Annex	N
KC 60064 : 2015	Tungsten filament lamps for domestic and similar general lighting purpose - Performance requirements	1 000 W or less	N
KC 60081 : 2015	Double - capped fluorescent lamps - Performance specifications	125 W or less	N
KC 60155 : 2015	Glow-starters for fluorescent lamps	250 V or less	N
KC 60188 : 2015	High - Pressure Mercury Vapour Lamps - Performance specifications	1 000 W or less	N
KC 60192 : 2015	Low - Pressure sodium vapour lamps - Performance specifications	1 000 W or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 60216-1 : 2015	Electrical insulating materials - Thermal endurance properties - Part 1 : Ageing procedures and evaluation of test results	general condition and process	N
KC 60238 : 2015	Edison screw lampholders	250 V or less	N
KC 60357 : 2015	Tungsten halogen lamps (non vehicle) - Performance specifications	250 V or less	N
KC 60400 : 2015	Lampholders for tubular fluorescent lamps and starterholders	1 000 V or less	N
KC 60432-1 : 2015	Incandescent lamps - Safety specifications - Part 1 : Tungsten filament lamps for domestic and similar general lighting purposes	250 V or less	N
KC 60432-2 : 2015	Incandescent lamps - Safety specifications - Part 2 : Tungsten halogen lamps for domestic and similar general lighting purposes	rated power 250 W or less / rated voltage (50 ~250) V or less / base B15d, B22d, E12, E14, E17, E26, E26d, E26/50×39, E27	N
KC 60432-3 : 2015	Incandescent lamps - Safety specifications - Part 3 : Tungsten halogen lamps (non - vehicle)	Single and double cap tungsten halogen lamp having a rated voltage of up to 250 V	N
KC 60529 : 2015	Degrees of protection provided by enclosures (IP Code)	IP 68 or less	N
K 60570 : 2015	Electrical supply track systems for luminaires	1 000 V or less	N
K 60570-2-1 : 2000	Electrical supply track systems for luminaires - Part 2 - 1 : mixed supply systems - classes 1 and 3	1 000 V or less	N
KC 60598-1 : 2015	Luminaires - Part 1 : General requirements and tests	1 000 V or less	N
KC 60598-2-1 : 2015	Luminaires. - Part 2 : Particular requirements. Section One : Fixed general purpose luminaires	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 60598-2-17 : 2015	Luminaires. - Part 2 : Particular requirements. Section Seventeen : Luminaires for stage lighting, television and film studios (outdoor and indoor)	1 000 V or less	N
KC 60598-2-18 : 2015	Luminaires - Part 2 : Particular requirements - Section 18 : Luminaires for swimming pools and similar applications	1 000 V or less	N
KC 60598-2-19 : 2015	Luminaires. - Part 2 : Particular requirements. Section Nineteen : Air - handling luminaires(safety requirements)	1 000 V or less	N
KC 60598-2-2 : 2015	Luminaires - Part 2 - 2 : Particular requirements - Recessed luminaires	1 000 V or less	N
KC 60598-2-20 : 2015	Luminaires - Part 2 - 20 : Particular requirements - Lighting chains	1 000 V or less	N
KC 60598-2-22 : 2015	Luminaires - Part 2 - 22 : Particular requirements - emergency lighting	1 000 V or less	N
KC 60598-2-23 : 2015	Luminaires - Part 2 - 23 : Particular requirements - Extra low voltage lighting systems for filament lamps	1 000 V or less	N
KC 60598-2-24 : 2015	Luminaires - Part 2 - 24 : Particular requirements - Luminaires with limited surface temperatures	1 000 V or less	N
KC 60598-2-25 : 2015	Luminaires - Part 2 : Particular requirements - Section 25: luminaires for use in clinical areas of hospitals and health care buildings	1 000 V or less	N
KC 60598-2-3 : 2015	Luminaires - Part 2 - 3 : Particular requirements - Luminaires for road and street lighting	1 000 V or less	N
KC 60598-2-4 : 2015	Luminaires - Part 2 : Particular requirements - Section 4 : Portable general purpose luminaires	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 60598-2-5 : 2015	Luminaires - Part 2 - 5 : Particular requirements - Floodlights	1 000 V or less	N
KC 60598-2-6 : 2015	Luminaires - Part 2 : Particular requirements - Section 6 : Luminaires with built - in transformers for filament lamps	1 000 V or less	N
KC 60598-2-8 : 2015	Luminaires - Part 2 - 8 : Particular requirements - Handlamps	1 000 V or less	N
KC 60682 : 2015	Standard method of measuring the pinch temperature of quartz - tungsten - halogen lamps	300 ℃	N
K 60695-2-1/0 : 2003	Fire hazard testing - Part 2 : test methods - Section 1 / sheet 0 : glow - wire test methods - general	960 ℃	N
K 60695-2-1/1 : 2003	Fire hazard testing - Part 2 : test methods - Section 1 / sheet 1 : glow - wire end - product test and guidance	960 ℃	N
KC 60695-2-2 : 2015	Fire hazard testing - Part 2 : Test methods - Section 2 : Needle - flame test	960 ℃	N
KC 60730-2-3 : 2015	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamp	660 V, 63 A or less	N
K 60838-1 : 2011	Miscellaneous lampholders - Part 1 : general requirements and tests	1 000 V or less	N
KC 60838-2-1 : 2015	Miscellaneous lampholders - Part 2 : Particular requirements - Section 1 : Lampholders S14	1 000 V or less	N
KC 60838-2-2 : 2015	Miscellaneous lampholders - Part 2 - 2 : Particular requirements - Connectors for LED - modules	1 000 V or less	N
K 60882 : 2000	Pre - heat requirements for starterless tubular fluorescent lamps	1 000 V or less	N
K 60887 : 2000	Glass bulb designation system for lamps	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 60901 : 2015	Single - capped fluorescent lamps - Performance specifications	100 W or less	N
K 60920 : 2000	Ballast for tubular fluorescent lamps general and safety requirements	50 Hz or 60 Hz, 1 000 V or less	N
KC 60921 : 2015	Ballasts for tubular fluorescent lamps - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
KC 60923 : 2015	Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
KC 60927 : 2015	Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
KC 60929 : 2015	AC and/or DC - supplied electronic control gear for tubular fluorescent lamps - Performance requirements	1 000 V or less	N
KC 60968 : 2015	Self-ballasted lamps for general lighting services - Safety requirements	250 V or less	N
KC 60969 : 2015	Self-ballasted lamps for general lighting services - Performance requirements	250 V or less	N
KC 60983 : 2014	Miniature lamps	250 V or less	N
K 61047 : 2008	D.C. or A.C. supplied electronic step - down convertors for filament lamps - performance requirements	d.c. 250 V, a.c. 1 000 V or less	N
KC 61048 : 2015	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	1 000 V or less	N
K 61049 : 2000	Capacitors for use in tubular fluorescent and other discharge lamp circuits, performance requirements	1 000 V or less	N
KC 61050 : 2015	Transformers for tubular discharge lamps having a no - load output voltage exceeding 1 000 V (generally called neon - transformers) - General and safety requirements	15 000 V or less	N
KC 61126 : 2015	Procedure for use in the preparation of maximum lamp outlines	size range in Annex	N
K 61127 : 2000	High pressure xenon short arc lamps - dimensional, electrical and photometric data and cap types	1 000 V or less	N
KC 61167 : 2015	Metal halide lamps - Performance specification	1 000 W or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
K 61184 : 2008	Bayonet lampholders	250 V or less, B15d and B22d	N
KC 60598-2-9 : 2015	Luminaires - Part 2 : Particular requirements Section 9 : Photo and film luminaires (non - professional	1 000 V or less	N
K 60630 : 2000	Maximum lamp outlines for incandescent lamps	size range in Annex	N
K 60634 : 2000	Heat test source (H.T.S.) lamps for carrying out heating tests on luminaires	H.T.S lamp	N
KC 60662 : 2015	High - pressure sodium vapour lamps - Performance specifications	1 000 W or less	N
KC 60664-1 : 2015	Insulation coordination for equipment within low - voltage systems - Part 1 : Principles, requirements and tests	d.c. 1 500 V, a.c. 1 000V or less	N
KC 61195 : 2015	Double - capped fluorescent lamps - Safety specifications	125 W or less	N
KC 61199 : 2015	Single - capped fluorescent lamps - Safety specifications	100 W or less	N
KC 61228 : 2014	Method of measuring and specifying the UV - radiation of ultraviolet lamps used for sun - tanning	200 nm ~ 1 000 nm	N
K 61231 : 2000	International lamps coding system (ILCOS)	1 000 V or less	N
KC 61341 : 2015	Method of measurement of centre beam intensity and beam angle(s) of reflector lamps	100 000 cd or less	N
KC 61347-1 : 2015	Lamp controlgear - Part 1 : General and safety requirements	1 000 V or less	N
KC 61347-2-1 : 2015	Lamp controlgear - Part 2 - 1 : Particular requirements for starting devices (other than glow starters)	1 000 V or less	N
K 61347-2-10 : 2009	Lamp controlgear Part 2 - 10 : Particular requirements for electronic invertors and convertors for high - frequency operation of cold start tubular discharge lamps	1 000 V or less	N
KC 61347-2-2 : 2015	Lamp controlgear - Part 2 - 2 : Particular requirements for d.c. or a.c. supplied electronic step - down convertors for filament lamps	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 61347-2-3 : 2015	Lamp controlgear - Part 2 - 3 : Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps	1 000 V or less	N
KC 61347-2-4 : 2015	Lamp controlgear - Part 2-4 : Particular requirements for d.c. supplied electronic ballasts for general lighting	1 000 V or less	N
KC 61347-2-5 : 2015	Lamp controlgear - Part 2 - 5 : Particular requirements for d.c. supplied electronic ballasts for public transport lighting	1 000 V or less	N
KC 61347-2-6 : 2015	Lamp controlgear - Part 2 - 6 : Particular requirements for d.c. supplied electronic ballasts for aircraft lighting	1 000 V or less	N
KC 61347-2-7 : 2015	Lamp controlgear - Part 2 - 7 : Particular requirements for battery supplied electronic controlgear for emergency lighting (self-contained	1 000 V or less	N
KC 61347-2-8 : 2015	Lamp controlgear - Part 2 - 8 : Particular requirements for ballasts for fluorescent lamps	1 000 V or less	N
KC 61347-2-9 : 2015	Lamp controlgear - Part 2 - 9 : Particular requirements for electromagnetic controlgear for discharge lamps (excluding fluorescent lamps)	1 000 V or less	N
KC 61347-2-13 : 2015	Lamp controlgear - Part 2 - 13 : Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	1 000 V or less	N
KC 61549 : 2014	Miscellaneous lamps	refer to related data - sheet	N
KC 62031 : 2015	LED modules for general lighting - Safety specifications	d.c. 250 V, a.c. 1 000 V or less	N
KC 62035 : 2015	Discharge lamps (excluding fluorescent lamps) - Safety specifications	1 000 W or less	N
KC 62384 : 2014	DC or AC supplied electronic control gear for LED modules - Performance requirements	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C 4305 : 2014	Luminous - tube transformers	15 000 V, 20 mA or less	N
KS C 7501 : 2003	Incandescent lamps for general lighting service	250 V or less	N
KS C 7502 : 1985	Lamp bulbs for motor vehicles	DC 24 V or less	N
KS C 7504 : 2010	Small incandescent lamps for household use	250 V or less	N
KS C 7507 : 2001	Lamps for railway	250 V or less	N
KS C 7514 : 2003	Spot light and flood light lamps	250 V or less	N
KS C 7522 : 2005	Neon glow lamps	250 V or less	N
KS C 7523 : 2014	Tungsten halogen lamps(non - vehicle)	250 V or less	N
KS C 7524 : 2001	Traffic signal lamps	250 V or less	N
KS C 7526 : 1989	Ball lamps	250 V or less	N
KS C 7528 : 2004	LED traffic signals	250 V or less	N
KS C 7601 : 2017	Fluorescent lamps for general lighting service	220 W or less	N
KS C 7602 : 2002	Glow starters for fluorescent lamps	250 V or less	N
KS C 7603 : 2014	Lighting fittings for fluorescent lamps	1 000 V or less	N
KS C 7604 : 2003	High pressure mercury vapour lamps	1 000 W or less	N
KS C 7605 : 1967	Photometric measurement on standard fluorescent lamps	220 W or less	N
KS C 7606 : 1977	Photometric measurement on standard mercury - arc lamps	1 000 W or less	N
KS C 7607 : 2014	Metal halide lamps	1 000 W or less	N
KS C 7610 : 2003	Sodium vapour Lamps	1 000 W or less	N
KS C 7614 : 1987	Photometric measurements on incandescent lamps used for incandescent lamps used for photometric standards	250 V or less	N
KS C 7617 : 2003	Neon tubings	1 000 V or less	N
KS C 7618 : 1976	Requirements for double-insulated and all - insulated lighting fittings	1 000 V or less	N
KS C 7619 : 1979	Photometric measurement on mirror - condenser lamps for projector	250 V or less	N
KS C 7620 : 2003	Luminaries for fluorescent lamps for use in railway vehicles	250 V or less	N
KS C 7621 : 2017	Self ballasted lamps	60 W or less	N
KS C 7631 : 1998	Electronic starters for fluorescent lamps	250 V or less	N
KS C 7651 : 2016	Self - ballasted LED lamps	60 W or less	N
KS C 7652 : 2014	Non - ballasted LED lamps	30 W or less	N
KS C 7653 : 2016	Recessed LED luminaires and fixed LED luminaires	300 W or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C 7655 : 2011	DC or AC supplied electronic control gear for LED modules Safety and performance requirements	300 W or less	N
KS C 7656 : 2016	LED lamps using portable luminaires Safety and performance requirements	300 W or less	N
KS C 7657 : 2014	LED sensor luminaires Safety and performance requirements	300 W or less	N
KS C 7658 : 2017	LED luminaires for road and street lighting - Safety and performance requirements	600 W or less	N
KS C 7659 : 2013	LED module for channel letter signs - Safety and performance requirements	DC 50 V or less	N
KS C 7702 : 1996	Lamp caps and holders	250 V or less	N
KS C 7703 : 2014	Lampholders and starterholders for fluorescent lamps	1 000 V or less	N
KS C 7704 : 1984	Glass tubing for fluorescent lamps	220 W or less	N
KS C 7705 : 1989	Desingation method for glass bulbs of lamps	250 V or less	N
KS C 7706 : 1968	Designation methods for filament of incandescent tungsten lamps	250 V or less	N
KS C 7708 : 1989	General rules of testing method for lamps	250 V or less	N
KS C 8000 : 1992	Luminaires	1 000 V or less	N
KS C 8010 : 2014	Luminaries for road lighting	600 V or less	N
KS C 8013 : 2002	A.C. supplied electronic ballasts for discharge lamp	1 000 V or less	N
KS C 8100 : 2014	A.C. supplied electronic ballasts for fluorescent lamps	1 000 V or less	N
KS C 8102 : 2004	Magnetic ballasts for fluorescent lamps	1 000 V or less	N
KS C 8103 : 2007	Table study lamps for fluorescent lamps	1 000 V or less	N
KS C 8104 : 2005	Ballasts for high pressure mercury vapour lamps	1 000 V or less	N
KS C 8105 : 1985	Hand lanterns	250 V or less	N
KS C 8107 : 1979	Projectors for incandescent lamps (flood light type)	250 V or less	N
KS C 8108 : 2002	Ballasts for sodium vapour lamps	1 000 V or less	N
KS C 8109 : 2014	Ballasts for metalhalide lamps	1 000 V or less	N
KS C 8302 : 2014	Edison screw lampholders	600 V or less	N
KS C 8315 : 1990	Rosett	250 V or less	N
KS C IEC 60064 : 2003	Tungsten filament lamps for domestic and similar general lighting purposes - performance requirements	250 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 60081 : 2012	Double - capped fluorescent lamps - performance specifications	125 W or less	N
KS C IEC 60155 : 2002	Glow - starters for fluorescent lamps	250 V or less	N
KS C IEC 60188 : 2002	Low - pressure sodium vapour lamps - performance specifications	1 000 W or less	N
KS C IEC 60192 : 2002	High - pressure mercury vapour lamps - Performance specifications	1 000 W or less	N
KS C IEC 60216-1 : 2008	Electrical insulating materials - properties of thermal endurance - Part 1 : ageing procedures and evaluation of test results	-	N
KS C IEC 60238 : 2002	Edison screw lampholders	250 V or less	N
KS C IEC 60249-1-A : 2014	Base materials for printed circuits - Part 1 : test methods	-	N
KS C IEC 60357 : 2003	Tungsten halogen lamps (non vehicle) - performance specifications	250 V or less	N
KS C IEC 60400 : 2002	lampholders for tubular fluorescent lamps and starterholders	1000 V or less	N
KS C IEC 60432-1 : 2002	Incandescent lamps - safety specifications - Part 1 : tungsten filament lamps for domestic and similar general lighting purposes	250 V or less	N
KS C IEC 60432-2 : 2002	Incandescent lamps - safety specifications - Part 2 : tungsten-halogen lamps for domestic and similar general lighting purposes	250 V or less	N
KS C IEC 60529 : 2017	Degrees of protection provided by enclosures (IP Code)	IP 68 or less	N
KS C IEC 60570 : 2003	Electrical supply-track systems for luminaires	class 1 440 V, class 3 25 V or less	N
KS C IEC 60598-1 : 2011	Luminaires - Part 1 : general requirements	1 000 V or less	N
KS C IEC 60598-2-1 : 2002	Luminaires - Part 2 : Particular requirements - Section 1 : Fixed general purpose luminaires	1 000 V or less	N
KS C IEC 60598-2-17 : 2003	Luminaires - Part 2 : Particular requirements. - Section Seventeen : luminaires for stage lighting, television and film studios (outdoor and indoor)	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 60598-2-18 : 2015	Luminaires - Part 2 : Particular requirements - Section 18 : luminaires for swimming pools and similar applications	1 000 V or less	N
KS C IEC 60598-2-19 : 2003	Luminaires - Part 2 : Particular requirements. - Section nineteen : air - handing luminaires (safety requirements)	1 000 V or less	N
KS C IEC 60598-2-2 : 2002	Luminaires - Part 2 : Particular requirements and tests - Section 2 : recessed luminaires	1 000 V or less	N
KS C IEC 60598-2-20 : 2003	Luminaires - Part 2 - 20 : Particular requirements - lighting chains	1 000 V or less	N
KS C IEC 60598-2-22 : 2015	Luminaires - Part 2 - 22 : Particular requirements - luminaires for emergency lighting	1 000 V or less	N
KS C IEC 60598-2-23 : 2003	Luminaires - Part 2 - 23 : Particular requirements- Extra low voltage lighting systems for filament lamps	1 000 V or less	N
KS C IEC 60598-2-24 : 2015	Luminaires - Part 2 - 24 : Particular requirements- Luminaires with limited surface temperatures	1 000 V or less	N
KS C IEC 60598-2-25 : 2015	Luminaires - Part 2 : Particular requirements - Section 25 : luminaires for use in clinical areas of hospitals and health care buildings	1 000 V or less	N
KS C IEC 60598-2-3 : 2014	Luminaires - Part 2 - 3 : Particular requirements - luminaires for road street lighting	1 000 V or less	N
KS C IEC 60598-2-4 : 2003	Luminaires - Part 2 - 4 : Particular requirements - Portable general purpose luminaires	1 000 V or less	N
KS C IEC 60598-2-5 : 2003	Luminaires - Part 2 - 5 : Particular requirements and floodlights	1 000 V or less	N
KS C IEC 60598-2-6 : 2003	Luminaires - Part 2 : Particular requirements and tests - Section 6 : luminaires with built - in transformer for filament lamps	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 60598-2-8 : 2008	luminaires - Part 2 - 8 : Particular requirements - hand lamps	1 000 V or less	N
KS C IEC 60598-2-9 : 2003	Luminaires - Part 2 : Particular requirements - Section Nine : photo and film luminaires (non - professional)	1 000 V or less	N
KS C IEC 60662 : 2014	High - pressure sodium vapour lamps	1 000 W or less	N
KS C IEC 60664-1 : 2014	Insulation coordination for equipment within low - voltage systems - Part 1 : principles, requirements and tests	d.c. 1 500 V, a.c. 1 000 V or less	N
KS C IEC 60682 : 2001	Standard method of measuring the pinch temperature of quartz - tungsten - halogen lamps	300 ℃ or less	N
KS C IEC 60691 : 2005	Thermal - links - requirements and application guide	a.c. 600 V, 400 A or less	N
KS C IEC 60695-2-1-0 : 2002	Fire hazard testing - Part 2 : test methods - Section 1 / sheet 0 : glow - wire test methods - general	960 ℃ or less	N
KS C IEC 60695-2-1-1 : 2002	Fire hazard testing - Part 2 : Test methods - Section 1 /sheet 1 : glow - wire end - product test and guidance	960 ℃ or less	N
KS C IEC 60695-2-2 : 2002	Fire hazard testing - Part 2 : test methods - Section 2 : needle - flame test	960 ℃ or less	N
KS C IEC 60730-2-3 : 2002	Automatic electrical controls for household and similar use - Part 2 - 3 : Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps	660 V, 63 A or less	N
KS C IEC 60838-1 : 2014	Miscellaneous lampsholders - Part 1 : general requirements and tests	1 000 V or less	N
KS C IEC 60838-2-1 : 2003	Miscellaneous lampholders - Part 2 : Particular requirements - Section 1 : lampsholders S14	1 000 V or less	N
KS C IEC 60838-2-2 : 2015	Miscellaneous lampholders Part 2 - 2 : Particular requirements Connectors for LED - modules	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 60901 : 2014	Single - capped fluorescent lamps - performance specifications	100 W or less	N
KS C IEC 60921 : 2008	Ballasts for tubular fluorescent lamps. performance requirements	1 000 V or less	N
KS C IEC 60923 : 2008	Auxiliaries for lamps - ballasts for discharge lamps (excluding tubular fluorescent lamps) - performance requirements	1 000 V or less	N
KS C IEC 60927 : 2008	A.C. supplied electronic ballasts for tubular fluorescent lamps - performance requirements	50 Hz or 60 Hz, 1 000 V or less	N
KS C IEC 60929 : 2008	A.C. supplied electronic ballasts for tubular fluorescent lamps - performance requirements	1 000 V or less	N
KS C IEC 60968 : 2014	Self - ballasted lamps for general lighting services-safety requirements	250 V or less	N
KS C IEC 60969 : 2002	incandescent lamps - safety specifications - Part 1 : tungsten filament lamps for domestic and similar general lighting purposes	250 V or less	N
KS C IEC 60983-A : 2014	Miniature lamps	250 V or less	N
KS C IEC 61047 : 2014	D.C. or A.C. supplied electronic step - down convertors for filament lamps - performance requirements	d.c. 250 V, a.c. 1 000 V or less	N
KS C IEC 61048 : 2008	Auxiliaries for lamps - capacitors for use in tubular fluorescent and other discharge lamps circuits - General and safety requirements	1 000 V or less	N
KS C IEC 61049-A : 2014	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - Performance requirements	1 000 V or less	N
KS C IEC 61050 : 2002	Transformers for tubular discharge lamps having a on - load output volt exceeding 1000V(generally called neon transformers) general and safe requirements	15 000 V or less	N
KS C IEC 61126 : 2003	Procedure for use in the preparation of maximum lamp outlines	size range in Annex	N
KS C IEC 61167 : 2014	Standard method of measuring the pinch temperature of quartz - tungsten - halogen lamps	1 000 W or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 61184 : 2014	Bayonet lampholders	250 V, B15d and B22d	N
KS C IEC 61195 : 2002	Double - capped fluorescent lamps - safety specifications	125 W or less	N
KS C IEC 61199 : 2015	single - capped fluorescent lamps - safety specifications	100 W or less	N
KS C IEC 61228-A : 2014	Method of measuring and specifying the UV - radiation of ultraviolet lamps used for sun - tanning	200 nm ~ 1 000 nm	N
KS C IEC 61341 : 2014	Method of measurement of centre bean intensive and beam angle of reflector lamps	100 000 cd or less	N
KS C IEC 61347-1 : 2008	Lamp controlgear - Part 1 : general and safety requirements	1 000 V or less	N
KS C IEC 61347-2-1 : 2002	Lamp controlgear - Part 2 - 1 : Particular requirements for starting devices (other than glow starter)	1 000 V or less	N
KS C IEC 61347-2-10 : 2014	Lamp controlgear - Part 2 - 10 : Particular requirements for electronic invertors and convertors for high - frequency operation of cold start tubular discharge lamps	1 000 V or less	N
KS C IEC 61347-2-11 : 2002	Lamp controlgear - Part 2 - 11 : Particular requirements for miscellaneous electronic circuits used with luminaires	1 000 V or less	N
KS C IEC 61347-2-13 : 2011	Lamp controlgear - Part 2 - 13 : Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	1 000 V or less	N
KS C IEC 61347-2-2 : 2002	Lamp controlgear - Part 2 - 2 : Particular requirements for D.C or A.C supplied electronic step - down convertors for filament lamps	1 000 V or less	N
KS C IEC 61347-2-3 : 2014	Lamp controlgear - Part 2 - 3 : Particular requirements for A.C. supplied electronic ballasts for fluorescent lamps	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KS C IEC 61347-2-7 : 2008	Lamp controlgear - Part 2 - 7 : Particular requirements for D.C supplied electronic ballasts for public transport lighting	1 000 V or less	N
KS C IEC 61347-2-8 : 2008	Lamp controlgear - Part 2 - 8 : Particular requirements for ballasts for fluorescent lamps	1 000 V or less	N
KS C IEC 61347-2-9 : 2008	Lamp controlgear - Part 2 - 9 : Particular requirements for ballasts for discharge lamps (excluding fluorescent lamp)	1 000 V or less	N
KS C IEC 61549-A : 2014	Miscellaneous lamps	250 V or less	N
KS C IEC 62035 : 2002	Discharge Lamps (Excluding Fluorescent Lamps) - Safety Specifications	1 000 W or less	N
KS P 6202 : 2006	Shadowless lamp	1 000 V or less	N
KS C IEC 62031 : 2011	LED modules for general lighting - Safety specifications	d.c. 250 V, a.c. 1 000 V or less	N
KS C IEC 62384 : 2011	DC or AC supplied electronic control gear for LED modules Performance requirements	1 000 V or less	N
KS V 8448 : 2014	Marine watertight type fluorescent ceiling lights	1 000 V or less	N
IEC 62471 : 2006	Photobiological safety of lamps and lamp systems	wavelength : (250 ~ 1 600) nm	N
IEC/TR 62471-2 : 2009	Photobiological safety of lamps and lamp systems - Part 2 : Guidance on manufacturing requirements relating to non - laser optical radiation safety	wavelength : (250 ~ 1 600) nm	N
K 10021 : 2010	Tublar LED lamps of Luminaires - Safety requirements	1 000 V or less	N
KC 20001 : 2015	Tublar LED lamps using external converter - Safety and Performance Requirements	lamp used G13 and D12 base	N
K 20002 : 2010	Tublar LED lamps using (external) convertor lampholder	D12 holder	N
K 61347-2-12 : 2009	Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)	1 000 V or less	N

No. KT005

03.009 Luminaire

Test method	Standard designation	Test range	Field testing
KC 60598-2-5 : 2015	Luminaires Part 2 - 5 : Particular requirements - Floodlights	1 000 V or less	N
KS C 7711 : 2016	LED ground recessed luminaires	1 000 V or less	N
KS C 7712 : 2016	LED flood-lighting luminaire	1 000 V or less	N
KS C 7713 : 2016	LED landscape lighting	1 000 V or less	N
KS A 7715 : 2011	LED pavement marker	DC 50 V or less	N
KS C 7716 : 2016	LED tunnel luminaires	1 000 V or less	N
KC 10023 : 2015	Self - ballasted LED lamps for general lighting services	250 V or less	N
KC 10025 : 2015	LED Lamp for Fluorescent Lamp Retrofit - Interal converter type	40 W or less	N
KS C 7717 : 2016	LED crosswalk luminaires	1 000 V or less	N
KS C 7719 : 2012	LED handlamps	DC 50 V or less	N
K 10006 : 2006	Safety requirements for induction lamps of PLS type	1 000 V or less	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
BS EN 60601-1 : 2006 + A11 : 2011	Medical electrical equipment. General requirements for safety	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1 Ed. 3.0 : 2005	Medical electrical equipment - Part 1 : General requirements for basic safety and essential performance	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1 Ed3.1 : 2012	Medical electrical equipment - Part 1 : General requirements for basic safety and essential performance	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-1 : 2011	Medical electrical equipment - Part 1 : General requirements for basic safety and essential performance	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-10 Ed. 2.0 : 2012	Medical electrical equipment. Part 2 -10 : Particular requirements for the safety of nerve and muscle stimulators	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-10 : 2008	Low frequency therapy equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-22 Ed. 3.1 : 2012	Medical electrical equipment - Part 2 : Particular requirements for the safety of diagnostic and therapeutic laser equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-1-1 : 2002	Medical electrical equipment - Part 1 - 1 : General requirements for safety - Collateral standard : safety requirements for medical electrical systems	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-22 : 2011	Medical electrical equipment - Part 2 -22 : Particular requirements for the safety of diagnostic and therapeutic laser equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 60601-1-3 Ed.2.0 : 2008	Medical electrical equipment - Part 1 - 3 : General requirements for basic safety and essential performance - Collateral Standard : Radiation protection in diagnostic X-ray equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-1-3 : 2011	Medical electrical equipment - Part 1 - 3 : General requirements for basic safety and essential performance - Collateral Standard: Radiation protection in diagnostic X-ray equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-8 Ed2.0 : 2006	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-2 ed5.0 : 2009	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-2 : 2011	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-5 Ed03.0 : 2009	Medical electrical equipment - Part 2 - 5 : Particular requirements for the basic safety and essential performance of ultrasonic physiotherapy equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-25 ed2.0 : 2011	Medical electrical equipment - Part 2 - 25 : Particular requirements for the basic safety and essential performance of electrocardiographs	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-26 ed.03.0 : 2012	Medical electrical equipment - Part 2 - 26 : Particular requirements for the basic safety and essential performance of electroencephalographs	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 60601-2-27 ed.03.0 : 2011	Medical electrical equipment - Part 2 - 27 : Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-27 : 2011	Medical electrical equipment - Part 2 - 27 : Particular requirements for the basic safety and essential performance of electrocardiographic monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 80601-2-30 ed.1.0 : 2009	Medical electrical equipment - Part 2 - 30 : Particular requirements for the basic safety and essential performance of automated non - invasive sphygmomanometers	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-30 : 2011	Medical electrical equipment - Part 2 - 30 : Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-37 ed.2.0 : 2007	Medical electrical equipment - Part 2 - 37 : Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-37 : 2011	Medical electrical equipment - Part 2 - 37 : Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-43 ed2.0 : 2010	Medical electrical equipment - Part 2 - 43 : Particular requirements for the basic safety and essential performance of X-ray equipment for interventional procedures	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-43 : 2011	Medical electrical equipment - Part 2 - 43 : Particular requirements for the basic safety and essential performance of X-ray equipment for interventional procedures	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 60601-2-44 ed.03.0 : 2009	Medical electrical equipment - Part 2 - 44 : Particular requirements for the basic safety and essential performance of X-ray equipment for computed tomography	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-44 : 2011	Medical electrical equipment - Part 2 - 44 : Particular requirements for the basic safety and essential performance of X-ray equipment for computed tomography	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-45 Ed.3.0 : 2011	Medical electrical equipment - Part 2 - 45 : Particular requirements for the basic safety and essential performance of mammographic X-ray equipment and mammographic stereotactic devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-45 Ed3.1 : 2015	Medical electrical equipment - Part 2 - 45 : Particular requirements for the basic safety and essential performance of mammographic X-ray equipment and mammographic stereotactic devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-45 : 2011	Medical electrical equipment - Part 2 - 45 : Particular requirements for basic safety and essential performance of mammographic X-ray equipment and mammomagraphic stereotactic devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-49 ed.2.0 : 2011	Medical electrical equipment - Part 2 - 49 : Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-49 : 2011	Medical electrical equipment - Part 2 - 49 : Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 60601-2-54 ed.1.0 : 2009	Medical electrical equipment - Part 2 - 54 : Particular requirements for the basic safety and essential performance of X-ray equipment for radiography and radioscopy	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-54 Ed1.1 : 2015	Medical electrical equipment - Part 2 - 54 : Particular requirements for the basic safety and essential performance of X-ray equipment for radiography and radioscopy	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-54 : 2012	Medical electrical equipment - Part 2 - 54 : Particular requirements for the basic safety and essential performance of X-ray equipment for radiography and radioscopy	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
ISO 80601-2-61 ed.1.0 : 2011	Medical electrical equipment - Part 2 - 61 : Particular requirements for basic safety and essential performance of pulse oximeter equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C ISO 80601-2-61 : 2014	Medical electrical equipment - Part 2 - 61 : Particular requirements for basic safety and essential performance of pulse oximeter equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-62 ed.1.0 : 2013	Medical electrical equipment - Part 2 - 62 : Particular requirements for the basic safety and essential performance of high intensity therapeutic ultrasound (HITU) equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-63 ed.1.0 : 2012	Medical electrical equipment - Part 2 - 63 : Particular requirements for the basic safety and essential performance of dental extra - oral X-ray equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-65 ed.1.0 : 2012	Medical electrical equipment - Part 2 - 65 : Particular requirements for the basic safety and essential performance of dental intra - oral X-ray equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
MINISTRY OF FOOD AND DRUG SAFETY Notice 2015-115 (2015.12.31)	Common Standards and Specifications on Electromechanical · Biological Safety of Medical Devices [Annex 1~9]	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-3 Ed.2.1 : 2013	Medical electrical equipment - Part 1 - 3 : General requirements for basic safety and essential performance - Collateral Standard : Radiation protection in diagnostic X-ray equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-1-6 : 2012	Medical electrical equipment - Part 1 - 6 : General requirements for basic safety and essential performance - Collateral standard : Usability	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-6 Ed3.0 : 2010	Medical electrical equipment - Part 1 - 6 : General requirements for basic safety and essential performance - Collateral standard : Usability	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-6 Ed3.1 : 2013	Medical electrical equipment - Part 1 - 6 : General requirements for basic safety and essential performance - Collateral standard : Usability	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-8 Ed2.1 : 2012	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-1-11 Ed2.0 : 2015	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
KS C IEC 60601-1-11 : 2012	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-2 Ed6.0 : 2017	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-4 Ed3.0 : 2010	Medical electrical equipment - Part 2 - 4 : Particular requirements for the basic safety and essential performance of cardiac defibrillators	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
KS C IEC 60601-2-5 : 2011	Medical electrical equipment - Part 2 - 5 : Particular requirements for the basic safety and essential performance of ultrasonic physiotherapy equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-10 Ed2.1 : 2016	Medical electrical equipment - Part 2 - 10 : Particular requirements for the basic safety and essential performance of nerve and muscle stimulators	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-18 Ed.3.0 : 2009	Medical electrical equipment - Part 2 - 18 : Particular requirements for the basic safety and essential performance of endoscopic equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-24 Ed2.0 : 2012	Medical electrical equipment - Part 2 - 24 : Particular requirements for the basic safety and essential performance of infusion pumps and controllers	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-28 Ed2.0 : 2010	Medical electrical equipment - Part 2 - 28 : Particular requirements for the basic safety and essential performance of X-ray tube assemblies for medical diagnosis	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
KS C IEC 60601-2-28 : 2011	Medical electrical equipment - Part 2 - 28 : Particular requirements for the basic safety and essential performance of X-ray tube assemblies for medical diagnosis	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 80601-2-30 Ed1.1 : 2013	Medical electrical equipment - Part 2 - 30 : Particular requirements for the basic safety and essential performance of automated non - invasive sphygmomanometers	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-33 Ed3.2 : 2015	Medical electrical equipment - Part 2 - 33 : Particular requirements for the basic safety and essential performance of magnetic resonance equipment for medical diagnosis	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 80601-2-35 ed2.1 : 2016	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-37 ed.2.1 : 2015	Medical electrical equipment - Part 2 - 37 : Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-40 Ed2.0 : 2016	Medical electrical equipment - Part 2 - 40 : Particular requirements for the basic safety and essential performance of electromyographs and evoked response equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-41 Ed2.1 : 2013	Medical electrical equipment - Part 2 - 41: Particular requirements for the basic safety and essential performance of surgical luminaires and luminaires for diagnosis	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 60601-2-44 Ed3.2 : 2016	Medical electrical equipment - Part 2 - 44 : Particular requirements for the basic safety and essential performance of X-ray equipment for computed tomography	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-52 Ed1.1 : 2015	Medical electrical equipment - Part 2 - 52 : Particular requirements for the basic safety and essential performance of medical beds	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
ISO 80601-2-56 Ed2.0 : 2017	Medical electrical equipment - Part 2 - 56 : Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-57 Ed1.0 : 2011	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	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 80601-2-60 Ed1.0 : 2012	Medical electrical equipment - Part 2 - 60 : Particular requirements for basic safety and essential performance of dental equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 60601-2-66 Ed2.0 : 2015	Medical electrical equipment - Part 2 - 66 : Particular requirements for the basic safety and essential performance of hearing instruments and hearing instrument systems	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
ISO 80601-2-69 Ed1.0 : 2014	Medical electrical equipment - Part 2 - 69 : Particular requirements for basic safety and essential performance of oxygen concentrator equipment	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 62366 Ed1.0 : 2007	Medical devices - Application of usability engineering to medical devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.010 Medical Device

Test method	Standard designation	Test range	Field testing
IEC 62366 Ed1.1 : 2014	Medical devices - Application of usability engineering to medical devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N
IEC 62366-1 Ed1.0 : 2015	Medical devices - Part 1 : Application of usability engineering to medical devices	(d.c. / a.c.) 250 V or less multiphase and other 500 V or less, 50 Hz / 60 Hz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
National ratio research agency notice No. 2016-26 (2016.12.19.)	Immunity measuring apparatus	electromagnetic waves suitability registration	N
KN 301 489-1 : 2012	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility (EMC) standard for radio equipment and services ; Part 1: Common technical requirements	electromagnetic waves suitability registration	N
KN 301 489-7 : 2008	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic 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)	electromagnetic waves suitability registration	N
KN 301 489-17 : 2013	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility (EMC) standard for radio equipment ; Part 17 : Specific conditions for Broadband Data Transmission Systems	electromagnetic waves suitability registration	N
KN 301 489-24 : 2008	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility (EMC) standard for radio equipment and services ; Part 24 : Specific conditions for IMT - 2000 CDMA Direct Spread(UTRA and E-UTRA) for Mobile and portable(UE) radio and ancillary equipment	electromagnetic waves suitability registration	N
EN 301 489-1 : 2017	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility(EMC) standard for radio equipment and services ; Part 1 : Common technical requirements	electromagnetic waves suitability registration	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
EN 301 489-7 : 2005	Electromagnetic compatibility and Radio spectrum Matters(ERM) ; ElectroMagnetic 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)	electromagnetic waves suitability registration	N
EN 301 489-17 : 2017	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility (EMC) standard for radio equipment ; Part 17 : Specific conditions for Broadband Data Transmission Systems	electromagnetic waves suitability registration	N
EN 301 489-24 : 2010	Electromagnetic compatibility and Radio spectrum Matters (ERM) ; ElectroMagnetic Compatibility (EMC) standard for radio equipment and services ; Part 24 : Specific conditions for IMT - 2000 CDMA Direct Spread (UTRA and E - UTRA) for Mobile and portable (UE) radio and ancillary equipment	electromagnetic waves suitability registration	N
AS/NZS CISPR 13 : 2012	Limits and methods of measurement of radio interference characteristics of sound and television broadcast receivers and associated equipment	CE : (0.150 ~ 2 150) MHz RE : (0.03 ~ 18) GHz	N
AS/NZS CISPR 14-1 : 2013	Electromagnetic compatibility(EMC) Requirements for household appliances, electric tools and similar apparatus - Part 1 : Emission	CE : (0.148 5 ~ 30) MHz RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.148 5 ~ 30) MHz RE : (0.03 ~ 1) GHz	N
AS/NZS CISPR 15 : 2011	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	CE : (0.009 ~ 30) MHz RE : (0.009 ~ 300) MHz	N
CFR 47 Part 15 : 2010	Federal Communication Commission - Limits and methods of measurement of Electromagnetic Interference	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
CFR 47 Part 18 : 2010	Industrial, scientific & medical(ISM) radio - frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	-	N
CISPR 11 Ed.6.1 2015 / AMD1 : 2016	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methodsof measurement for the protection of off - board receivers	frequency : CE : (0.009 ~ 30) MHz RE : (0.03 ~ 18) GHz	N
CISPR 13 Ed. 5.0 b : 2009	Industrial, scientific & medical(ISM) radio - frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	CE : (0.150 ~ 2 150) MHz RE : (0.03 ~ 18) GHz	N
CISPR 14-1 Ed. 6.0 : 2016	Electromagnetic compatibility(EMC) Requirements for household appliances, electric tools and similar apparatus - Part 1 : Emission	frequency : RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.148 5 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.148 5 ~ 30) MHz	N
CISPR 16-1-1 Ed 4.0 : 2015	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 1 : Radio disturbance and immunity measuring apparatus - Measuring apparatus	frequency : 9 kHz ~ 18 GHz	N
CISPR 16-1-2 Ed. 2.0 : 2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 2 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances	frequency : 9 kHz ~ 1 GHz	N
CISPR 16-1-3 Ed. 2.1 : 2004 / AMD1 : 2016	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 3 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Disturbance power	frequency : (0.03 ~ 1) GHz	N
CISPR 16-1-4 Ed.3.2 : 2010 / AMD2 : 2017	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 4 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Radiated disturbances	frequency : 9 kHz ~ 18 GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
CISPR 16-2-1 Ed.3.1 : 2014 / AMD1 : 2017	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 1 : Methods of measurement of disturbances and immunity - Conducted disturbance measurements	frequency : (0.009 ~ 30) MHz	N
CISPR 16-2-2 Ed.1.2 : 2010	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 2 : Methods of measurement of disturbances and immunity - Measurement of disturbance power	frequency : (0.03 ~ 1) GHz	N
CISPR 16-2-3 Ed. 4.0 : 2016	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 3 : Methods of measurement of disturbances and immunity - Radiated disturbance measurements	frequency : 9 kHz ~ 18 GHz	N
CISPR 16-2-4 Ed. 1.0 : 2003	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 4 : Methods of meaurement of disturbances and immunity - Immunity measurements	frequency : 9 kHz ~ 18 GHz	N
CISPR 16-4-2 Ed. 2.1 : 2011/AMD1 : 2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 4 - 2 : Uncertainty, statistics and limit modeling - Uncertainties in EMC measurements	frequency : 9 kHz ~ 18 GHz	N
CISPR 14-2 Ed. 2.0 : 2015	Electromagnetic compatibility(EMC) Amendment 2 - Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2 : Immunity - Product family standard	ESD : ±(4 ~ 8) kV RS: (0.08 ~ 3) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N
CISPR 15 Ed.8.1 : 2013 / AMD1 : 2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	frequency : CE : (0.009 ~ 30) MHz RE : (0.009 ~ 300) MHz	N
CISPR 20 : Ed. 6.1 : 2006 /AMD1 : 2013	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(4 ~ 8) kV EFT : ±(0.5 ~ 1) kV	N
CISPR 22 : Ed. 6.0 : 2008	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
CISPR 24 Ed. 2.1 : 2010 / AMD1 : 2015	Electromagnetic compatibility(EMC) Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(1 ~ 30) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz PFM : (3 ~ 30) A/m V-dip : 16 A or less	N
CISPR 32 Ed. 2.0 : 2015	Electromagnetic compatibility of multimedia equipment - Emission requirements	frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
CISPR 35 Ed. 1.0 : 2016	Electromagnetic compatibility of multimedia equipment - Immunity requirements	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 3) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(0.5 ~ 4) kV CS : (0.15 ~ 230) MHz PFM : (3 ~ 30) A/m V-DIP : 16 A or less	N
EN 55011 : 2016 / A1 : 2017	Industrial, scientific & medical(ISM) radio - frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	CE : (0.009 ~ 30) MHz RE : (0.030 ~ 18) GHz	N
EN 55013 : 2013 : A1 : 2016	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of off - board receivers	CE : (0.150 ~ 2 150) MHz RE : (0.030 ~ 18) GHz	N
EN 55014-1 : 2017	Limits and methods of measurement of radio interference characteristics of sound and television broadcast receivers and associated equipment	RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.1485 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.148 5 ~ 30) MHz	N
EN 55014-2 : 2015	Electromagnetic compatibility(EMC) Requirements for household appliances, electric tools and similar apparatus - Part 2 : Emission	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 3) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
EN 55015 : 2013/A1 : 2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	CE : (0.009 ~ 30) MHz RE : (0.009 ~ 300) MHz	N
EN 55020 : 2007/A12 : 2016	Sound and television broadcast receivers and associated equipment. Immunity characteristics. Limits and methods of measurement	ESD : ±(4 ~ 8) kV EFT : ±(0.5 ~ 1) kV	N
EN 55022 : 2006 / A2 : 2012	Information Technology Equipment - Radio disturbance characteristics - Limits and methods of measurement	frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
EN 55024 : 2010 / A1 : 2015	Information technology equipment. Immunity characteristics. Limits and methods of measurement	ESD : ±(1 ~ 30) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz PFM : (3 ~ 30) A/m V-DIP : 16 A or less	N
BS EN 50130-4 : 2011 + A1 : 2014	Alarm Systems- Part 4 : Electromagnetic Compatibility - Product family standard : Immunity requirements of fire, intruder and social alarm systems	ESD : ±(1 ~ 30) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz PFM : (3 ~ 30) A/m V-DIP : 16 A or less	N
EN 61000-3-11 : 2000	Electromagnetic compatibility (EMC). Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems. Equipment with rated voltage current ≤ 75 A and subject to conditional connection	a.c. input current : 16 A ~ 75 A	N
EN 61000-3-2 Ed. 4.0 : 2014	Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	a.c. 16 A or less harmonic current emissions test	N
EN 61000-3-3 : 2013	Electromagnetic compatibility (EMC). 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	a.c. 16 A or less harmonic current emissions test	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
EN 61000-4-1 : 2007	Electromagnetic compatibility (EMC). Testing and measurement techniques. Overview of IEC 61000 - 4 series	EN 61000－4 series	N
EN 61000-4-10 : 2017	Electromagnetic compatibility (EMC). Testing and measurement techniques. Damped oscillatory magnetic field immunity test. Basic EMC publication	(0.03 ~ 10) MHz	N
EN 61000-4-11 : 2004 / A1 : 2017	Electromagnetic compatibility (EMC). Testing and measurement techniques. Voltage dips, short interruptions and voltage variations immunity tests	a.c. 16 A or less harmonic current emissions test	N
EN 61000-4-12 : 2017	Electromagnetic compatibility (EMC). Testing and measurement techniques. Ring wave immunity test	voltage : (0.25 ~ 6) kV	N
EN 61000-4-13 : 2002 /A2 : 2016	Electromagnetic compatibility (EMC). Testing and measurement techniques. Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	-	N
EN 61000-4-2 : 2009	Electromagnetic compatibility (EMC). Testing and measurement techniques. Electrostatic discharge immunity test	±(2 ~ 15) kV	N
EN 61000-4-3 : 2006 + A2 : 2010	Electromagnetic compatibility (EMC). Testing and measurement techniques. Radiated, radio - frequency, electromagnetic field immunity test	(0.08 ～ 6) GHz, (1 ~ 10) V/m	N
EN 61000-4-4 : Ed 3.0 2012	Electromagnetic compatibility (EMC). Testing and measurement techniques. Electrical fast transient/burst immunity test	±(0.25 ~ 4) KV	N
EN 61000-4-5 : Ed 3.0 2014	Electromagnetic compatibility (EMC). Testing and measurement techniques. Surge immunity test	±(0.5 ~ 30) kV	N
EN 61000-4-6 : Ed 4.0 2014	Electromagnetic compatibility (EMC). Testing and measurement techniques. Immunity to conducted disturbances, induced by radio - frequency fields	(0.009 ～ 80) MHz (1 ~ 10) V/m	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
EN 61000-4-7 : 2002 + A1 : 2009	Electromagnetic compatibility (EMC). Testing and measurement techniques . General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	-	N
EN 61000-4-8 : 2010	Electromagnetic compatibility (EMC). Testing and measurement techniques. Power frequency magnetic field immunity test	(1 ~ 100) A/m, 50 Hz / 60 Hz	N
EN 61000-4-9 : 2016	Electromagnetic compatibility (EMC). Testing and measurement techniques. Pulse magnetic field immunity test. Basic EMC publication	magnetic field : (100 ~ 1 000) A/m	N
EN 61000-6-1 : 2007	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.080 ~ 2.7) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
EN 61000-6-2 : 2005	Electromagnetic compatibility (EMC). Generic standards. Immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 2.7) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N
EN 61000-6-3 2007/A1 : 2011/AC : 2012	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments	CE : (0 ~ 30) MHz RE : (0.03 ~ 1) GHz	N
EN 61000-6-4 : 2007/A1 : 2011	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments	CE : (0.15 ~ 30) MHz RE : (0.030 ~ 1) GHz	N
EN 61547 : 2009	Equipment for general lighting purposes. EMC immunity requirements	RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
IEC 60255-26 : 2013	Measuring relays and protection equipment - Part 26 : Electromagnetic compatibility requirements	(2 ~ 15) kV	N
IEC 60601-1-2 Ed. 3.0 : 2007	Medical electrical equipment - Part 1 - 2 : General requirements for basic safety and essential	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz ESD : ±(6 ~ 8) kV RS : (0.08 ~ 2.5) GHz EFT : ±(1 ~ 2) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz M/F : (0 ~ 3) A/m V-DIP : 16 A or less	N
IEC 60601-1-2 Ed. 4.0 : 2014	Medical electrical equipment - Part 1 - 2 : General requirements for basic safety and essential performance - Collateral Standard : Electromagnetic disturbances - Requirements and tests	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz ESD : ±(6 ~ 8) kV RS : (0.08 ~ 2.5) GHz EFT : ±(1 ~ 2) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz M/F : (0 ~ 3) A/m V-DIP : 16 A or less	N
IEC 61000-3-11 Ed. 2.0 : 2017	Electromagnetic compatibility (EMC) - Part 3 - 11 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems - Equipment with rated current ≤ 75 A and subjet to conditional connection	a.c. input current : (16 ~ 75) A	N
IEC 61000-3-2 Ed. 4.0 : 2014	Electromagnetic compatibility (EMC) - Part 3 - 2 : Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)	a.c. 16 A or less harmonic current emissions test	N
IEC 61000-3-2 Ed. 5.0 : 2018	Electromagnetic compatibility (EMC) - Part 3 - 2 : Limits - Limits for harmonic current emissions(equipment input current ≤16 A per phase)	a.c. 16 A or less harmonic current emissions test	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
IEC 61000-3-3 Ed. 3.0 : 2013	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	a.c. 16 A or less harmonic current emissions test	N
IEC 61000-3-3 Ed. 3.1 : 2017	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	a.c. 16 A or less harmonic current emissions test	N
IEC TR 61000-4-1 : 2016	Electromagnetic compatibility (EMC) - Part 4 - 1 : Testing and measurement techniques - Overview of IEC 61000 - 4 series	IEC 61000－4 series	N
IEC 61000-4-10 Ed 2.0 : 2016	Electromagnetic compatibility (EMC) - Part 4 - 10 : Testing and measurement techniques - Damped oscillatory magnetic field immunity test	(0.03 ~ 10) MHz	N
IEC 61000-4-11 Ed. 2.1 : 2004/AMD1 : 2017	Electromagnetic compatibility (EMC) - Part 4 - 11 : Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	16 A or less	N
IEC 61000-4-12 Ed 3.0 : 2017	Electromagnetic compatibility (EMC) - Part 4 - 12 : Testing and measurement techniques - Ring wave immunity test	(0.25 ~ 6) kV	N
IEC 61000-4-13 Ed 1.2 : 2002 / AMD2 : 2015	Electromagnetic compatibility (EMC) - Part 4 - 13 : Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	16 A or less	N
IEC 61000-4-2 Ed 2.0 : 2008	Electromagnetic compatibility (EMC) - Part 4 - 2 : Testing and measurement techniques - Electrostatic discharge immunity test	±(2 ~ 15) kV	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
IEC 61000-4-3 Ed 3.2 : 2006 / AMD2 : 2010	Electromagnetic compatibility (EMC) - Part 4 - 3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	(0.08 ~ 6) GHz, (1 ~ 10) V/m	N
IEC 61000-4-4 Ed 3.0 : 2012	Electromagnetic compatibility (EMC) - Part 4 - 4 : Testing and measurement techniques - Electrical fast transient/burst immunity test	±(0.25 ~ 4) KV	N
IEC 61000-4-5 Ed 3.0 : 2014	Electromagnetic compatibility (EMC) - Part 4 - 5 : Testing and measurement techniques - Surge immunity test	±(0.5 ~ 30) kV	N
IEC 61000-4-6 Ed 4.0 : 2013	Electromagnetic compatibility (EMC) - Part 4 - 6 : Testing and measurement techniques - Immunity to conducted disturbances, induced by radio - frequency fields	(0.009 ~ 80) MHz (1 ~ 10) V/m	N
IEC 61000-4-7 Ed. 2.1 : 2002 / AMD1 : 2008	Electromagnetic compatibility (EMC) - Part 4 - 7 : Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	-	N
IEC 61000-4-8 : 2009	Electromagnetic compatibility (EMC) - Part 4 - 8 : Testing and measurement techniques - Power frequency magnetic field immunity test	(1 ~ 100) A/m, 50 Hz / 60 Hz	N
IEC 61000-4-9 Ed. 2 : 2016	Electromagnetic compatibility (EMC) - Part 4 - 9 : Testing and measurement techniques - Pulsemagnetic field immunity test	(100 ~ 1 000) A/m	N
IEC 61000-6-1 Ed. 3 : 2016	Electromagnetic compatibility (EMC) - Part 6 - 1 : Generic standards - Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.080 ~ 2.7) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
IEC 61000-6-2 Ed. 3 : 2016	Electromagnetic compatibility (EMC) - Part 6 - 2 : Generic standards - Immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 2.7) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N
IEC 61000-6-3 Ed.2.1 : 2006 / AMD1 : 2010	Electromagnetic compatibility (EMC) - Part 6 - 3 : Generic standards - Emission standard for residential, commercial and light - industrial environments	CE : (0 ~ 30) MHz RE : (0.03 ~ 1) GHz	N
IEC 61000-6-4 Ed.2.1 : 2006 / AMD1 : 2010	Electromagnetic compatibility (EMC) - Part 6 - 4 : Generic standards - Emission standard for industrial environments	CE : (0.15 ~ 30) MHz RE : (0.030 ~ 1) GHz	N
IEC 61547 Ed 2.0 : 2009	Equipment for general lighting purposes - EMC immunity requirements	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
IEC 62040-2 Ed 3.0 : 2016	Uninterruptible power systems (UPS)— Part 2 : Electromagnetic compatibility (EMC) requirements	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz SD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(1 ~ 2) kV Surge : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m	N
KN 11 : 2015	Industrial, scientific and medical equipment - Radio - frequency disturbance characteristics - Limits and methods of measurement	CE : (0.009 ~ 30) MHz RE : (0.030 ~ 18) GHz	N
KN 13 : 2008	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	CE : (0.150 ~ 2 150) MHz RE : (0.030 ~ 18) GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KN 14-1 : 2014	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1 : Emission	RP : (30 ~ 300) MHz DISCONTINOUS DISTURBANCE : (0.1485 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.148 5 ~ 30) MHz	N
KN 15 : 2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	CE : (0.009 ~ 30) MHz RE : (0.009 ~ 300) MHz	N
KN 16-1-1 : 2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 1 : Radio disturbance and immunity measuring apparatus - Measuring apparatus	frequency : 9 kHz ~ 18 GHz	N
KN 16-1-2 : 2013	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 2 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances	frequency : 9 kHz ~ 1 GHz	N
KN 16-1-3 : 2013	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 3 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Disturbance power	frequency : (0.03 ~ 1) GHz	N
KN 16-1-4 : 2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 4 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Radiated disturbances	frequency : 9 kHz ~ 18 GHz	N
KN 16-2-1 : 2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 1 : Methods of measurement of disturbances and immunity - Conducted disturbance measurements	frequency : (0.009 ~ 30) MHz	N
KN 16-2-2 : 2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 2 : Methods of measurement of disturbances and immunity - Measurement of disturbance power	frequency: (0.03 ~ 1) GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KN 16-2-3 : 2011	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 3 : Methods of measurement of disturbances and immunity - Radiated disturbance measurements	frequency: 9 kHz ~ 18 GHz	N
KN 16-2-4 : 2008	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2 - 4 : Methods of measurement of disturbances and immunity - Immunity measurements	frequency: 9 kHz ~ 18 GHz	N
KN 19 : 2008	Guidance on the use of the substitution method for measurements of radiation from microwave ovens for frequencies above 1 GHz	more than 1 GHz	N
KN 61000-4-11 : 2008	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measuring techniques - Section 11 : Voltage dips, short interruptions and voltages immunity test	16 A or less	N
KN 61000-4-2 : 2013	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 2 : Electrostatic discharge immunity test	±(2 ~ 15) kV	N
KN 61000-4-3 : 2011	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 3 : electromagnetic field immunity test	(0.08 ~ 6) GHz, (1 ~ 10) V/m	N
KN 61000-4-4 : 2011	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 4 : Electrical fast transient / burst immunity test	±(0.25 ~ 4) KV	N
KN 61000-4-5 : 2008	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 5 : Surge immunity test	±(0.5 ~ 30) kV	N
KN 61000-4-6 : 2013	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 6 : Immunity to conducted disturbances	(0.009 ~ 80) MHz (1 ~ 10) V/m	N
KN 61000-4-8 : 2013	Electromagnetic compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 8 : Power frequency magnetic field immunity test	(1 ~ 100) A/m, 50 Hz / 60 Hz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KN 20 : 2009	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(4 ~ 8) kV EFT : ±(0.5 ~ 1) kV	N
KN 22 : 2009	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
KN 24 : 2011	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(1 ~ 30) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz V-dip : 16 A or less	N
KN 32 : 2015	Testing Method for the Prevention of Electromagnetic Interference in Multimedia Devices	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
KN 35 : 2015	Testing Method for Multimedia Devices Electromagnetic Resistance	PFM : (3 ~ 30) A/m ESD : ±(2 ~ 8) kV RS : (0.08 ~ 5) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 4) kV CS : (0.15 ~ 80) MHz V-DIP : 16 A or less	N
KS C 0262 : 2014	Electromagnetic Compatibility(EMC) - General Measurements	EMC standard	N
KS C 0268 : 1995	Electromagnetic Compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 7 : General guide on harmonics and inter - harmonics measurements and instrumentation, for power supply systems and equipment connected thereto	(0 ~ 2 500) Hz	N
KS C 0271 : 1995	Electromagnetic compatibility(EMC) - Part 4 : Testing and measurement techniques - Section 10 : Damped oscillatory magnetic field immunity test	(0.030 ~ 10) MHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KS C 9811 : 2017	Industrial, scientific and medical equipment - Radio - frequency disturbance characteristics - Limits and methods of measurement	RE : 150 kHz ~ 18 GHz CE : (0.009 ~ 30) MHz	N
KS C CISPR 13 : 2011	Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement	CE : (0.150~ 2 150) MHz RE : (0.03~18) GHz	N
KS C 9814-1 : 2017	Electromagnetic compatibility(EMC) - Requirements for household appliances, electric tools and similar apparatus - Part 1 : Emission	RP : (30~300) MHz DISCONTINOUS DISTURBANCE : (0.148 5 ~ 30) MHz RE : (0.030 ~ 1) GHz CE : (0.148 5 ~ 30) MHz	N
KS C 9814-2 : 2017	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2 : Immunity - Product family standard	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 3) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(0.5 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N
KS C 9815 : 2017	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	CE : (0.009~30) MHz RE : (0.009~300) MHz	N
KS C 9816-1-1 : 2017	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 1 : Radio disturbance and immunity measuring apparatus - Measuring apparatus	9 kHz ~ 18 GHz	N
KS C 9816-1-2 : 2017	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1 - 2 : Radio disturbance and immunity measuring apparatus - Coupling devices for conducted disturbance measurements	9 kHz ~ 1 GHz	N
KS C 9816-1-3 : 2017	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-3 : Radio disturbance and immunity measuring apparatus - Ancillary equipment - Disturbance power	(0.03 ~ 1) GHz	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KS C 9816-1-4 : 2017	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	9 kHz ~ 18 GHz	N
KS C CISPR 20 : 2014	Sound and television broadcast receivers and associated equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(4~8) kV EFT : ±(0.5~1) kV	N
KS C CISPR 22 : 2011	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	CE : (0.15~30) MHz RE : (0.03~6) GHz	N
KS C CISPR 24 : 2014	Information technology equipment - Immunity characteristics - Limits and methods of measurement	ESD : ±(1~30) kV RS : (0.08~1) GHz EFT : ±(0.5~1) kV Surge: ±(0.5~2) kV CS : (0.15~230) MHz V-dip : 16 A or less	N
KS C IEC 60255-22-2 : 2012	Electrical Relays - Part 22 : Electrical disturbance tests for measuring relays and protection equipment - Section 2 : Electrostatic Discharge Tests Second Edition	(2 ~ 15) kV	N
KS C IEC 60601-1-2 : 2012	Medical electrical equipment - Part 1 - 2 : General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz ESD : ±(6 ~ 8) kV RS : (0.08 ~ 2.5) GHz EFT : ±(1 ~ 2) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz M/F : (0 ~ 3) A/m V-dip : 16 A or l ess	N
KS C 9610-3-11 : 2017	Electromagnetic compatibility (EMC) - Part 3 - 11 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	a.c. input current : (16 ~ 75) A	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KS C 9610-3-2 : 2017	Electromagnetic Compatibility(EMC) - Part 3 - 2 : Limits - Limits for harmonic current emissions(equipment input current ≤ 16 A per phase)	a.c. 16 A or less harmonic current emissions test	N
KS C 9610-3-3 : 2017	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 ≤ 16A per phase and not subject to conditional connection	a.c. 16 A or less	N
KS C IEC 61000-4-1 : 2012	Electromagnetic compatibility(EMC) Part 4 - 1 : Testing and measurement techniques - Overview of IEC 61000 - 4 series	KS C IEC 61000－4 series	N
KS C IEC 61000-4-10 : 2014	Electromagnetic compatibility (EMC) - Part 4 - 10 : Testing and measurement techniques - Damped oscillatory magnetic field immunity test	(10 ~ 100) A/m	N
KS C 9610-4-11 : 2017	Electromagnetic Compatibility(EMC) - Part 4 - 11 : Testing and measurement techniques - Voltage dips, short interruptions and voltages variations immunity test	16 A or less	N
KS C IEC 61000-4-12 : 2008	Electromagnetic compatibility (EMC) - Part 4 - 12 : Testing and measurement techniques - Ring wave immunity test	(0.25 ~ 6) kV	N
KS C IEC 61000-4-13 : 2010	Electromagnetic compatibility (EMC) - Part 4 - 13 : Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	-	N
KS C 9610-4-2 : 2017	Electromagnetic Compatibility(EMC) - Part 4 - 2 : Testing and measurement techniques - Electrostatic discharge immunity test	±(2 ~ 15) kV	N
KS C 9610-4-3 : 2017	Electromagnetic Compatibility(EMC) - Part 4 - 3 : Testing and measurement techniques - Radiated, radio - frequency, electromagnetic field immunity test	(0.08 ～ 6) GHz, (1 ~ 10) V/m	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KS C 9610-4-4 : 2017	Electromagnetic Compatibility(EMC) - Part 4 - 4 : Testing and measurement techniques - Electrical fast transient / burst immunity test	±(0.25 ~ 4) kV	N
KS C 9610-4-5 : 2017	Electromagnetic Compatibility(EMC) - Part 4 - 5 : Testing and measurement techniques - Surge immunity test	±(0.5 ~ 30) kV	N
KS C 9610-4-6 : 2017	Electromagnetic compatibility (EMC) - Part 4 - 6 : Testing and measurement techniques - Immunity to conducted disturbances, induced by radio - frequency fields	(0.009 ~ 80) MHz (1 ~ 10) V/m	N
KS C IEC 61000-4-7 : 2010	Electromagnetic compatibility (EMC) - Part 4 - 7 : Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	-	N
KS C 9610-4-8 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 8 : Testing and measurement techniques - Power frequency magnetic field immunity test	(1 ~ 100) A/m, 50 Hz / 60 Hz	N
KS C 9610-4-9 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 9 : Testing and measurement techniques - Pulse magnetic field immunity test	(100 ~ 1 000) A/m	N
KS C 9610-6-1 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 1 : Generic standards - Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.080 ~ 2.7) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
KS C 9610-6-2 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 2 : Generic standards - Immunity for Industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 2.7) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

Test method	Standard designation	Test range	Field testing
KS C 9610-6-3 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 3 : Generic standards - Emission standard for residential, commercial and light - industrial environments	CE : (0 ~ 30) MHz RE : (0.03 ~ 1) GHz	N
KS C 9610-6-4 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 4 : Generic standards - Emission Standard for Industrial environments	CE : (0.15 ~ 30) MHz RE : (0.030 ~ 1) GHz	N
KS C 9547 : 2017	Equipment for general lighting purposes - EMC immunity requirements	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
KS C 9040-2 : 2017	Uninterruptible power systems(UPS) - Part 2 : Electromagnetic compatibility(EMC) requirements	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz SD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(1 ~ 2) kV Surge : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
ISO/IEC 10373-1 : 2006 Amd.1 : 2012	Identification cards - Test method - Part 1 : General characteristics	-	N
ISO/IEC 10373-3 : 2010	Identification cards - Test method - Part 3 : Integrated circuit(s) cards with contacts and related interface devices	-	N
ISO/IEC 10373-6 : 2016	Identification cards - Test method - Part 6 : Proximity cards	-	N
ISO/IEC 14443-1 : 2016	Identification cards - Contactless Integrated circuit(s) cards - Proximity cards - Part 1 : Physical characteristics	-	N
ISO/IEC 14443-2 : 2016	Identification cards - Contactless Integrated circuit(s) cards - Proximity cards - Part 2 : Radio Frequency power and signal interface	-	N
ISO/IEC 14443-3 : 2016 Amd 1 : 2016	Identification cards - Contactless integrated circuit(s) cards - Proximity cards - Part 3 : Initialization and anticollision	-	N
ISO/IEC 14443-4 : 2016 Amd 1 : 2016	Identification cards - Contactless integrated circuit cards - Proximity cards - Part 4 : Transmission protocol	-	N
ISO/IEC 7501-1 : 2008	Identification cards - Machine readable travel documents - Part 1 : Machine readable passport	-	N
ISO/IEC 7810 : 2003 Amd1 : 2009 Amd2 : 2012	Identification cards - Physical characteristics	-	N
ISO/IEC 7816-1 : 2011	Identification cards - Integrated circuit cards - Part 1 : Cards with contacts - Physical characteristics	-	N
ISO/IEC 7816-2 : 2007	Identification cards - Integrated circuit cards - Part 2 : Cards with contacts - Dimensions and location of the contacts	-	N
ISO/IEC 7816-3 : 2006	Identification cards - Integrated circuit cards - Part 3 : Cards with contacts - Electrical interface and transmission protocols	-	N
ISO/IEC 7816-4 : 2013	Identification cards - Integrated circuit cards - Part 4 : Organization, security and commands for interchange	-	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
KS X 6503 : 2002	Identification cards - Physical characteristics	-	N
KS X ISO/IEC 7816-1 : 2011	Identification cards - Integrated circuit(s) cards with contacts - Part 1 : Physical characteristics	-	N
KS X ISO/IEC 7816-2 : 2011	Identification cards - Integrated circuit(s) cards with contacts - Part 2 : Dimensions and location of the contacts	-	N
KS X ISO/IEC 7816-3 : 2011	Identification cards - Integrated circuit(s) cards with contacts - Part 3 : Electronic signals and transmission protocols	-	N
KS X 6923-1 : 2014	The specifications of purchase SAM on terminal of contactless IC card for electronic money Part 1 : Physical characteristics and basic structure of purchase SAM	-	N
KS X 6923-2 : 2014	The specifications of purchase SAM on terminal of contactless IC card for electronic money Part 2 : Command and protocol		N
KS X 6923-3 : 2014	The specifications of purchase SAM on terminal of contactless IC card for electronic money - Part 3 : Cryptogram of purchase SAM	-	N
KS X 6923-4 : 2014	The specifications of purchase SAM on terminal of contactless IC card for electronic money - Part 4 : Test methode and management of purchase SAM	-	N
KS X 6924-1 : 2014	The specifications of pre - paid IC card - Part 1 : Physical characteristics and basic structure	-	N
KS X 6924-2 : 2014	The specifications of pre - paid IC card - Part 2 : Command and Protocol	-	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
KS X 6924-3 : 2014	The specifications of pre - paid IC card - Part 3 : Cryptogram		N
KS X 6924-4 : 2014	The specifications of pre - paid IC card - Part 4 : Conformance test	-	N
KS X 6925-1 : 2014	The specifications of payment terminal for pre - paid IC card - Part 1 : Physical specifications	-	N
KS X 6925-2 : 2014	The specifications of payment terminal for pre - paid IC card - Part 2 : Logical specifications	-	N
KS X 6925-3 : 2014	The specifications of payment terminal for pre - paid IC card - Part 3 : Cryptogram specifications	-	N
KS X ISO/IEC 10373-1 : 2010	Identification cards-Test method - Part 1 : General characteristics tests	-	N
KS X ISO/IEC 10373-3 : 2007	Identification cards - Test method - Part 3 : Integrated circuit(s) cards with contacts and related interface devices	-	N
KS X ISO/IEC 10373-6 : 2008	Identification cards - Test method - Part 6 : Proximity cards	-	N
KS X ISO/IEC 14443-1 : 2010	Identification cards - Contactless Integrated circuit(s) cards - Proximity cards - Part 1 : Physical characteristics	-	N
KS X ISO/IEC 14443-2 : 2008	Identification cards - Contactless Integrated circuit(s) cards - Proximity cards - Part 2 : Radio Frequency power and signal interface	-	N
KS X ISO/IEC 14443-3 : 2008	Identification cards - Contactless Integrated circuit(s) cards - Proximity cards - Proximitycards— Part 3 : Initialization and anticollision	-	N
KS X ISO/IEC 14443-4 : 2008	Identification cards-Contactless Integrated circuit(s) cards - Proximity cards - Part 4 : Transmission protocol	-	N
ICAO Doc 9303 : 2015	Machine Readable Travel Documents Part 1 Machine Readable passports Volume 2 Specifications for Electronically Enabled Passports with Biometric Identification Capability	-	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
ICAO Technical Report : 2006	Durability of Machine Readable Passports	-	N
ICAO RF Protocol and Application Test Standard for E-Passport - Part 2 v1.02	Tests for Air Interface Initialisation Anticollision and Tranaport Protocol	-	N
ICAO Radio Frequency Protocol and Application Test Standard for eMRTD - Part 3 v2.10	Tests for application Protocol and Logical data Structure	-	N
ICAO RF Protocol and Application Test Standard for E-Passport - Part 4 v1.01	E-Passport Reader Tests for Air Interface Initialisation, Anticollision and Transport Protocol	-	N
BSI TR - 03110	AdvancedSecurity Mechanmisms for Machine Readable Travel Documents - Extended Access Control (EAC)	-	N
BSI TR-03105 Part 3.2 v1.12	Test plan for eMRTDs with Advanced Security Mechanisms - EAC 1.11	-	N
OIML D-31 : 2008	General requirement for software controlled measuring instruments	-	N
Ministry of Science, ICT and Future Planning Notice 2013-51 (2013.08.08.)	Korea Evaluation and Certification Scheme for IT Security	Applied to Evaluation and Certification	N
CCMB-2006-09-001	Common Criteria for Information Technology Security Evaluation, Part 1 : Introduction and general model Version 3.1 Revision 1	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2007-09-002	Common Criteria for Information Technology Security Evaluation, Part 2 : Security functional components Version 3.1 Revision 2	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
CCMB-2007-09-003	Common Criteria for Information Technology Security Evaluation, Part 3 : Security assurance components Version 3.1 Revision 2	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2007-09-004	Common Criteria for Information Technology Security Evaluation, Evaluation methodology, Version 3.1 Revision 2	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2017-04-001	Common Criteria for Information Technology Security Evaluation, Part 1 : Introduction and general model Version 3.1 Revision 5	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2017-04-002	Common Criteria for Information Technology Security Evaluation, Part 2 : Security functional components Version 3.1 Revision 5	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2017-04-003	Common Criteria for Information Technology Security Evaluation, Part 3 : Security assurance components Version 3.1 Revision 5	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
CCMB-2017-04-004	Common Criteria for Information Technology Security Evaluation, Evaluation methodology, Version 3.1 Revision 5	EAL1, EAL2, EAL3, EAL4, EAL5, AVA_VAN.5	N
KS C 5078 : 2015	Video data recording systems for road vehicle accidents	-	N
KS X ISO/IEC TR 9126-2 : 2008	Information technology - Software engineering - Product quality - Part 2 : External metrics	-	N
ISO/IEC25051 : 2014	Software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing	RUSP(Ready to Use Software Product) Software, Product Description, User / Test Documentation, Conformity Evaluation	N
IEC 62304 : 2006	Medical device software - Software life cycle processes	-	N
IEC 62304 : 2006 + AMD1 : 2015	Medical device software - Software life cycle processes	-	N

No. KT005

03.012 Software test

Test method	Standard designation	Test range	Field testing
IEC 60601-1 : 2005	Medical electrical equipment - Part 1 : General requirements for basic safety and essential performance 14, Annex H	-	N
IEC 60601-1 : 2005 + AMD1 : 2012	Medical electrical equipment - Part 1 : General requirements for basic safety and essential performance 14, Annex H	-	N
IEC 61508-3 : 2010	Functional safety of electrical / electronic / programmable electronic safety - related systems - Part 3 : Software requirements	-	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
Ministry of trade, Industry and energy notice No.2017-61 (2017.05.01.)	The provisions for Certification of efficiency energy - using appliances Program	-	N
	1. Electric refigerator	capacity 500 L under, capacity 500 L or less	N
	3. kimchi refrigerator	rated voltage 220 V ± 2 %, 60 Hz ± 1 %	N
	4. Air conditioners	220 V / 380 V, 60Hz, cooling : 40 ㎾ or less heating : 30 ㎾ or less	N
	5. Electric washing machine	250 V or less 50 Hz / 60 Hz 2 kg ~ 25 kg	N
	9. Electric storage water heaters & freer	single phase 220 V, 60 Hz cooling : 500 W or less, heating : 1 000W or less,	N
	10. Electric rice cooker	single phase 220 V, 60 Hz	N
	12. Electric fans	single phase 220 V, 60 Hz, diameter 0.02 m or more 0.041 m or less	N
	14. Incandescent Lamp	220 V, 25 W ~ 150 W	N
	15. Fluorescent Lamps	intuition(Type 20 W, 28 W, 32 W, 40 W), Round(32 W, 40 W), Compact(FPX 13 W, FDX 26 W, FPL 27 W, FPL 32 W, FPL 36 W, FPL 45 W, FPL 55 W)	N
	16. Ballsts for Fluorescent Lamps	intuition(Type 20 W, 28 W, 32 W, 40 W), Round(32 W, 40 W), Compact(FPX 13 W, FDX 26 W, FPL 27 W, FPL 32 W, FPL 36 W, FPL 45 W, FPL 55 W)	N
	17. Self ballasted Lamps	5 W ~ 60 W	N
	18. Inducted electromotor of three phase	0.75 ㎾ ～ 375 ㎾	N
	20. Adapter, battery chargers	Output Power 300 W or less	N
	22. Commercial electric refrigerator	Max 30 kW	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
Ministry of trade, Industry and energy notice No.2017-61 (2017.05.01.)	The provisions for Certification of efficiency energy - using appliances Program(continue)	-	N
	26. Television Receiver	rated power consumption : 2 000 W or less	N
	28. Electric Stove	rated power consumption : 500 W ~ 10 kW	N
	31. Electric heated resin sheet	rated power consumption : 200 W ~ 1 000 W	N
	32. Electric mat water heaters	rated power consumption : 200 W ~ 1 000 W	N
	33. Heating board	rated power consumption : 200 W ~ 1 000 W	N
	34. Electric bed	rated power consumption : 200 W ~ 1 000 W	N
	35. Electric radiator	rated power consumption : 500 W ~ 10 kW	N
	36. Hotplates	rated power consumption : 1 kW ~ 10 kW	N
	37. Set-top Boxes	rated power consumption : 200 W or less	N
	38. Self-ballasted LED lamps	AC 220 V, 60 Hz	N
	39. Non-ballasted LED lamps	AC/DC 50 V or less, 30 W or less	N
Ministry of Trade, Industry and energy notice No. 2017-105 (2017.07.24)	The provisions for certification of high efficiency energy - using appliances program	-	N
	35. LED road luminaires	a.c. 220 V, 60 Hz, 400 W or less	N
	36. LED Flood - lighting luminaires	a.c. 220 V, 60 Hz, 400 W or less	N
	37. LED Tunnel Luminaires	AC 220 V, 60 Hz	N
	1. Lighting device with auto luminance	250 V or less, rated current 16 A or less	N
	13. Uninterruptible power systems	single phase 100 kVA, three phases 500 kVA or less	N
	15. Power transformer	1 000 V or less	N
	7. Ballasts for metalhalide lamps	220 V / 60Hz, second voltage 1 000 V or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
Ministry of Trade, Industry and energy notice No. 2017-105 (2017.07.24)	The provisions for certification of high efficiency energy - using appliances program (continue)	-	N
	8. Ballasts for Sodium lamps	Input frequency 60 Hz, a.c. 1 000 V or less	N
	11. LED Traffic Signal Light	10 W or less	N
	24. Inducted electromotor of single phase	200 kW or less	N
	18. Metalhalide lamp	150W, 200W, 350W	N
	26. LED lamp of external converter	a.c./d.c. 50 V or less, 30 W or less	N
	27. LED lamp of internal converter	220 V, 60 Hz, 60 W or less	N
	30. LED sensor luminaires	a.c. 220 V, 60 Hz, 30 W or less	N
	31. Converter for LED modules power supply	a.c. 220 V, 60 Hz, output voltage DC 250 V or less	N
	48. electric automobile charging system	100 kVA or less	N
Ministry of Trade,Industry and energy notice No. 2018-244 (2018.12.28)	The provisions for certification of high efficiency energy - using appliances program		N
	15. LED modules for message sign	DC 50 V or less	N
	20. Luminaries - 1) Indoor LED luminaries	a.c. 220 V, 60 Hz	N
	20. Luminaries - 2) Outdoor LED luminaries	a.c. 220 V, 60 Hz	N
	20. Luminaries - 3) PLS luminaries	1 000 V or less, 700 W, 1 000 W	N
	20. Luminaries - 4) hade reflected high luminance for fluorescent lamp	a.c. 220 V, 60 Hz, 150 W or less	N
	20. Luminaries - 5) Luminaries for fluorescent induction lamp	a.c. 220 V, 60 Hz, 400 W or less	N
	21. LED Lamp - 1) Tubular LED lamps using external converter	22 W or less	N
	21. LED Lamp - 2) LED Lamp for Fluorescent Lamp Retrofit – Internal converter type	20 W, 32 W, 40 W	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
MOTIE Notice No. 2015-159 (2015.07.31.)	Rules for e - standby program	-	N
	1. Computers	rated power consumption 1 000 W or less	N
	2. Monitors	rated power consumption 5 000 W or less	N
	3. Printers	rated power consumption 3 000 W or less	N
	4. Fax Machines	rated power consumption 3 000 W or less	N
	5. Copiers	rated power consumption 5 000 W or less	N
	6. Scanners	rated power consumption 1 000 W or less	N
	7. Multifunctional Devices	rated power consumption 5 000 W or less	N
	8. Energy-Saving & Controlling Devices	(100 ~ 600) V, 50 A or less	N
	10. Audio	rated power consumption 1 000 W or less	N
	11. DVD Players	rated power consumption 150 W or less	N
	12. Radio Cassette	rated power consumption 1 000 W or less	N
	13. Microwave Ovens	rated power consumption 3 000 W or less	N
	14. Set-top Boxes	rated power consumption 300 W or less	N
	15. Door phones	rated power consumption 200 W or less	N
	16. Cordless/Corded Phones	rated power consumption 200 W or less	N
	17. Bidet	rated power consumption 3 000 W or less	N
	18. Modem	rated power consumption 200 W or less	N
	19. Home Gateway	rated power consumption 300 W or less	N
	20. Hand Dryers	rated power consumption 5 000 W or less	N
	21. Servers	rated power consumption 5 000 W or less	N
	22. Digital converter	rated power consumption 500 W or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
ENERGY STAR	ENERGY STAR Program Requirements Product Specification for Audio / Video, Eligibility Criteria Version 3.0 (2013)	(100 ~ 250) V, (50 ~ 60) Hz	N
ENERGY STAR	ENERGY STAR Program Requirements Product Specification for Televisions, Eligibility Criteria Version 6.0 (2013) - CEA: Procedure for DAM Testing(Add)	(100 ~ 250) V, (50 ~ 60) Hz	N
ENERGY STAR	ENERGY STAR Program Requirements Product Specification for Computer, Eligibility Criteria Version 5.2 (2009)	(100 ~ 250) V, (50 ~ 60) Hz	N
ENERGY STAR	ENERGY STAR Program Requirements Product Specification for Displays, Eligibility Criteria Version 6.0 (2013)	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC TS 60034-2-3 : 2013	Rotating electrical machines - Part 2 - 3 : Specific test methods for determining losses and efficiency of converter - fed AC induction motors	Single phase: : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
IEC 60034-30-1 : 2014	Rotating electrical machines - Part 30 - 1 : Efficiency classes of line operated AC motors(IE code)	Single phase: : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
IEC TS 60034-30-2 : 2016	Rotating electrical machines - Part 30 - 2 : Efficiency classes of variable speed AC otors(IE-code)	Single phase: : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
IEC 62301 : 2011	Household Electrical Appliances - Measurement of Standby Power	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087 : 2011	Methods for Measurement for the Power Consumption of Audio, Video and Related Equipment	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087-1 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 1 : General	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087-2 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media	(100 ~ 250) V, (50 ~ 60) Hz	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
IEC 62087-3 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 3 : Television sets	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087-4 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 4 : Video recording equipment	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087-5 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 5 : Set - top - boxes	(100 ~ 250) V, (50 ~ 60) Hz	N
IEC 62087-6 : 2015	Audio, video, and related equipment - Determination of power consumption - Part 6 : Audio equipment	(100 ~ 250) V, (50 ~ 60) Hz	N
ANCI/CEA-2037 : 2010	Determination of Television Average Power Consumption	(100 ~ 250) V, (50 ~ 60) Hz	N
IES LM-79-08	Electrical and Photometric Measurements of Solid - State Lighting Products	a.c. (0 ~ 300) V a.c. (0 ~ 30) A	N
KS C 8561 : 2016	Crystalline silicone photovoltaic (PV) module(performance)	max voltage 300 V or less max current 30 A or less	N
KS C 8563 : 2015	Photovoltaic(PV) module(safety qualification)	max voltage 300 V or less max current 30 A or less	N
KS C 8577 : 2016	Building integrated photovoltaics (BIPV) modules - The requirement of performance evaluation	max voltage 300 V or less max current 30 A or less	N
IEC 60904-1 Ed. 2.0b : 2006	Photovoltaic devices - Part 1 : Measurement of photovoltaic current - voltage characteristics	max voltage 200 V or less max current 24 A or less	N
IEC 61215 Ed. 2.0b : 2005	Crystalline silicon terrestrial photovoltaic(PV) modules - Design qualification and type approval	max voltage 200 V or less max current 24 A or less	N
IEC 61730-1 : 2016	Photovoltaic(PV) module safety qualification - Part 1 : Requirements for construction	max voltage 2 500 V or less max current 30 A or less	N
IEC 61730-2 : 2016	Photovoltaic(PV) module safety qualification - Part 2 : Requirements for testing	max voltage 8 000 V or less max current 30 A or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
IEC 62552 : 2007	Household refrigerating appliances - Characteristics and test methods	250 Vac or less 50 Hz / 60 Hz	N
IEC 62552-1 : 2015	Household refrigerating appliances - Characteristics and test methods - Part 1 : General requirements	250 Vac or less 50 Hz / 60 Hz	N
IEC 62552-2 : 2015	Household refrigerating appliances - Characteristics and test methods - Part 2 : Performance requirements	250 Vac or less 50 Hz / 60 Hz	N
IEC 62552-3 : 2015	Household refrigerating appliances - Characteristics and test methods - Part 3 : Energy consumption and volume	250 Vac or less 50 Hz / 60 Hz	N
KS C IEC 62552 : 2014	Household refrigerating appliances - Characteristics and test methods	250 Vac or less 50 Hz / 60 Hz	N
BS EN 62552 : 2013	Household refrigerating appliances. Characteristics and test methods	250 Vac or less 50 Hz / 60 Hz	N
IEC 60456 ed.5.0 : 2010	Clothes washing machines for household use - Methods for measuring the performance	250 Vac or less 50 Hz / 60 Hz	N
KS C IEC 60456 : 2015	Clothes washing machines for household use - Methods for measuring the performance	250 Vac or less 50 Hz / 60 Hz	N
KS C IEC 60904-1 : 2009	Photovoltaic devices - Part 1 : Measurement of photovoltaic current - voltage characteristics	max voltage 200 V or less max current 40 A or less	N
KS C IEC 61215 : 2006	Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval	max voltage 200 V or less max current 40 A or less	N
KS C IEC 61730-1 : 2014	Photovoltaic (PV) module safety qualification - Part 1 : Requirements for construction	max voltage 2 500 V or less max current 30 A or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
KS C IEC 61730-2 : 2014	Photovoltaic (PV) module safety qualification - Part 2 : Requirements for testing	max voltage 8 000 V or less max current 30 A or less	N
C360-03	Energy Performance, Water Consumption, and Capacity of Household Clothes Washers (CSA C360-03)	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NOM-015-ENER-2012	Household Refrigerating Appliances - Characteristics and Test Methods	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NOM-021-ENER-SCFI : 2008	Energy efficiency and safety requirements to the user in room type air conditioners. Limits, test methods and labelling	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NOM-023-ENER : 2010	Energy efficiency for separated assemblies, free delivery and non - ducted air conditioners. Limits, test methods and labelling	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
BS EN 62552 : 2013	Household Refrigerating Appliances - Characteristics and Test Methods	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NMX-J-585-ANCE-2007	Household and similar elecrical applicances - Test Method for energy performance, water consumption and capacity of household clothes washing machine	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NTE INEN 2659 : 2013	Appliances and similar. Clothes washing machine. Test methods for energy Consumption Water consumption and volumetric capacity.	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NTE INEN 2206 : 2011	Household refrigerating appliances with or without frosting. Refrigerators with or without low temperature compartment. Inspection Requirements	Input Power: Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency: (50 / 60) Hz	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
IEC 60456 Ed 5.0 : 2010-02	Clothes washing machines for Household use Methods for measuring the performance Fourth Edition	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
BS EN 60456 : 2016	Clothes washing machines for Household use Methods for measuring the performance Fourth Edition	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
IEC 62512 Ed1.0 2012-09	Electric clothes washer-dryers for household use - Methods for measuring the performance	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
IEC 62301 Ed2.0 2011-01	Household electrical appliances - Measurement of standby power	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
UAE.S5010 2 : 2013	Energy efficiency label for electrical appliances Part 2 : Washing Machines and Dryers	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
NTE INEN 2659 : 2013	Appliances and similar. Clothes washing machine. Test methods for energy Consumption Water consumption and volumetric capacity.	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
RTE INEN 035 : 2009	Energy efficiency in refrigeration appliances for household use. Report power consumption test methods and labeling	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
RTE INEN 077 : 2013	Energy efficiency clothes washers household electric. limits test method and labeling	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
RTE INEN 124 : 2014	Energy efficiency and labeling of washer dryer machine	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
SASO 2692 : 2013	Energy Labelling Requirement of Clothes Washing Machines for Household Use	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
SASO 2693 : 2007	Method for Measuring the Performance of Clothes Washing for Household Use	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
SASO 2683 : 2007	Clothes washing machines for household use - Methods for measuring the performance	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
SASO 2664 : 2013	Energy Performance and Capacity of Household Refrigerators Refrigerators - Freezers and Freezers	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
SASO IEC 60034-30 : 2013	Rotating electrical machines - Part 30 : Efficiency classes of single - speed, three - phase, cage - induction motors(IE code)	Single phase: : Max 400 V Three Phases : Max 600 V Capacity : Max 375 kW	N
TCVN 8526 : 2013	Electric washing machine -. Minimum energy performance and method for determination of energy efficiency	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N
TCVN 7627 : 2007	Refrigerating Equipment appliances - Characteristics and testmethods	Input Power : Max. 10 kW Input Voltage : Single Phase Max. 250 V Frequency : (50 / 60) Hz	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-1 : 2013	Environmental Testing - Part 1 : General and guidance	Temperature : (-50 ~ 55) ℃	N
IEC 60068-2-1 : 2007	Environmental Testing - Part 2 - 1 : Tests - Tests A : Cold	Temperature : (-50 ~ 55) ℃	N
IEC 60068-2-10 : 2005	Environmental testing - Part 2 - 10 : Tests - Test J and guidance : Mould growth	Flow rate: 1 m/s or less Temperature : (28 ~ 30) ℃	N
IEC 60068-2-11 : 1981	Basic Environmental testing procedures - Part 2 - 11 : Tests - Tests Ka : Salt Mist	Temperature : (35 ± 2) ℃	N
IEC 60068-2-13 : 1983	Basic Environmental testing procedures - Part 2 - 13 : Tests - Test M : Low air pressure	Air Pressure : (1 ~ 84) kPa Tolerance : ±2 kPa	N
IEC 60068-2-14 : 2009	Environmental testing - Part 2 - 14 : Tests - Test N : Change of temperature	(0 ~ 100) ℃	N
IEC 60068-2-17 : 1994	Basic Environmental testing procedures - Part 2 - 17 : Tests - Test Q : Sealing	Pressure difference : (1.47 ~ 9.78) kPa	N
IEC 60068-2-18 : 2017	Environmental testing - Part 2 - 18 : Tests - Test R and guidance : Water	IPX1 ~ IPX7 (IPX8 ~ IPX9 except)	N
IEC 60068-2-2 : 2007	Environmental Testing - Part 2 - 2 : Tests - Tests B : Dry Heat	Nomial cross - sectional area : (0.05 ~ 1.20) ㎟, Diameter for circualr section wires : (0.25 ~ 1.25) ㎜, Force : (0.25 ~ 8) N	N
IEC 60068-2-20 : 2008	Environmental Testing - Part 2 - 20 : Tests - Test T : Test methods for solderability and resistance to soldering heat of devices with leads	Temperature : (350 ± 10) ℃	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-2-21 : 2006	Environmental Testing - Part 2 - 21 : Tests - Test U : Robustness of terminations and integral mounting devices	Nominal cross sectional area : (0.05 ~ 1.20) ㎟, Diameter for Wires : (0.25 ~ 1.25) ㎜, Force: (1 ~ 40) N	N
IEC 60068-2-27 : 2008	Environmental Testing - Part 2 - 27 :Tests - Test Ea and guidance : Shock	acceleration : (50 ~ 1 000) m/s²	N
IEC 60068-2-30 : 2005	Environmental Testing - Part 2 - 30 : Tests - Test Db, Damp heat cyclic(12 + 12 - hour cycle)	Relative humidity : (10 ~ 90) % R.H. Temperature : (15 ~ 45) ℃	N
IEC 60068-2-31 : 2008	Environmental Testing - Part 2 - 31 : Tests - Test Ec : Routh handing shocks, primarily for equipment - type specimens	Fall heights : 25 ㎜ ~ 1 500 ㎜	N
IEC 60068-2-38 : 2009	Environmental Testing - Part 2 - 38 : Tests - Test Z / AD : Composite temperature / Humidity Cyclic Test	Relative humidity : (93 ± 3) % R..H. Temperature : (-10 ~ 65) ℃	N
IEC 60068-2-39 : 2015	Environmental Testing - Part 2 - 39 : Tests - Tests and guidance : Combined temperature or temperature and humidity with low air pressure tests	Pressure : (15 ~ 70) kPa Temperature : (-55 ~ 85) ℃	N
IEC 60068-2-40 : 1983	Basic Environmental Testing procedures - Part 2 - 40 :Tests - Tests Z / AM : Combined Cold / Low Air Pressure Tests	Pressure : (15 ~ 70) kPa Temperature : (-55 ~ -25) ℃	N
IEC 60068-2-41 : 1983	Basic Environmental Testing procedures - Part 2 - 41 : Tests. - Test Z / BM : Combined dry heat/low air pressure tests	Pressure : (15 ~ 70) kPa Temperature : (40 ~ 85) ℃	N
IEC 60068-2-42 : 2003	Environmental Testing - Part 2 - 42 :Tests. - Test Kc : Sulphur dioxide test for contacts and connections	Temperature : (25 ± 2) ℃ humidity : 75 % R.H. SO_2 : 25 ppm	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-2-43 : 2003	Environmental Testing - Part 2 - 43 : Tests - Test Kd : Hydrogen sulphide test for contacts and connections	Hydrogen sulphide : (10×10^{-6} ~ 15×10^{-6}) %, Temperature : (25 ± 2) ℃ Relative humidity : 75 %. R.H.	N
IEC 60068-3-13 : 2016	Environmental testing - Part 3 - 13 : Supporting documentation and guidance on Test T - Soldering	temperature range : (235 ~ 250) ℃	N
IEC 60068-2-45 : 1993	Basic Environmental Testing procedures - Part 2 - 45 : Tests - Test Xa and guidance immersion in cleaning solvents	(48 ~ 51) ℃	N
IEC 60068-2-46 : 1982	Basic Environmental Testing procedures - Part 2 - 46 : Tests - Guidance to Test Kd : Hydrogen sulphide test for contacts and connections	humidity : 70 % R.H. Temperature : (25 ± 2) ℃	N
IEC 60068-2-47 : 2005	Environmental Testing - Part 2 - 47 : Test methods - Mounting of vibration, impact and similar dynamic tests	(20 ~ 1 000) Hz 78.4 m/s^2	N
IEC 60068-2-49 : 1983	Basic Environmental Testing procedures - Part 2 - 49 : Tests - Guidance to Test Kc : Sulphur dioxide test for contacts and connections	Temperature : 20 ℃ Humidity : (70 ~ 75) % R.H.	N
IEC 60068-2-5 : 2010	Environmental Testing - Part 2 - 5 : Tests - Test Sa : Simulated solar radiation at ground level and guidance for solar radiation testing	(320 ~ 400) nm	N
IEC 60068-2-52 : 1996	Environmental Testing - Part 2 - 52 : Tests - Test Kb : Salt mist, cyclic (sodium, chloride solution)	temperature : 38 ℃ ~ 42 ℃ humidity : (90 ~ 95) % R..H. Nacl concentration : (5 ± 1) %	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-2-53 : 2010	Environmental Testing - Part 2 - 53 : Tests and Guidance - Combined climatic(temperature / humidity) and dynamic(vibration / shock) tests	temperature : (-60 ~ 300) ℃	N
IEC 60068-2-55 : 2013	Environmental Testing - Part 2 - 55 : Tests - Test Ee and guidance : Loose cargo testing including bounce	horizontality : (25 ~ 26) ㎜ max acceleration : (10.78 ~ 11.76) m/s^2	N
IEC 60068-2-57 : 2013	Environmental Testing - Part 2 - 57 : Tests - Test Ff : Vibration - Time - history and sine - beat method	frequency : (20 ~ 2 000) Hz acceleration : Max 8 G	N
IEC 60068-2-58 : 2015	Environmental Testing - Part 2 - 58 : Tests - Test Td : Test methods for solderability, resistance to dissolution of metalization and to soldering heat of surface mounting device (SMD)	temperature : (170 ~ 250) ℃	N
IEC 60068-2-6 : 2007	Environmental testing - Part 2 - 6 : Tests - Test Fc : Vibration (sinusoidal)	frequency : (20 ~ 2 000) Hz acceleration : max 8 G	N
IEC 60068-2-60 : 2015	Environmental Testing - Part 2 - 60 : Tests - Test Ke : Flowing mixed gas corrosion test	Temperature : (25 ~ 30) ℃ Humidity : (70 ~ 75) % R.H. H_2S : (10 ~ 100) ppb NO_2 : 200 ppb Cl_2 : (10 ~ 20) ppb SO_2 : (200 ~ 500) ppb	N
IEC 60068-2-61 : 1991	Environmental Testing - Part 2 - 61 : Tests method - Test Z / ABDM : Climatic sequence	temperature : (-50 ~ 250) ℃	N
IEC 60068-2-64 : 2008	Environmental Testing - Part 2 - 64 : Tests method - Test Fh : Vibration, broad - band random and guidance	frequency : (20 ~ 2 000) Hz acceleration : max 8 G	N
IEC 60068-2-65 : 2013	Environmental Testing - Part 2 - 65 : Test - Test Fg : Vibration - acoustically induced method	noise : (20 ~ 110) dB	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-2-66 : 1994	Environmental Testing - Part 2 - 66 : Test methods - Test Cx : Damp heat, steady state(unsaturated pressurized vapour)	temperature : (100 ~ 130) ℃	N
IEC 60068-2-67 : 1995	Environmental Testing - Part 2 - 67 : Tests - Test Cy : Damp heat, steady state, accelerated test primarily intended for components	temperature : (85 ± 2) ℃ humidity : (85 ± 1.5) % R.H.	N
IEC 60068-2-68 : 1994	Environmental Testing - Part 2 - 68 : Tests - Test L : Dust and Sand	molecule size 75 μm	N
IEC 60068-2-69 : 2007	Environmental testing - Part 2 - 69 : Tests - Test Te : Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method	temperature (235 ± 3) ℃ speed : (1 ~ 5) mm/s	N
IEC 60068-2-7 : 1986	Basic Environmental testing procedures - Part 2 - 7 : Tests - Test Ga and guidance : Acceleration, steady state	(49 ~ 980) m/s²	N
IEC 60068-2-70 : 1995	Environmental Testing - Part 2 - 70 : Tests - Test Xb : Abrasion of marking and letterings caused by rubbing of fingers and hands	angle : (45 ± 5) ℃ speed : 60 mm/s	N
IEC 60068-2-74 : 1999	Environmental Testing - Part 2 : Tests - Test Xc : Fluid contamination	temperature : (23 ~ 150) ℃ minimum area : 20 ㎠	N
IEC 60068-2-75 : 2014	Environmental Testing - Part 2 - 75 : Tests - Test Eh : Hammer tests	impact energy base : (0.14 ~ 50) J	N
IEC 60068-2-77 : 1999	Environmental Testing - Part 2 - 77 : Tests - Test 77 : Body strength and impact shock	Load : 10 N or less	N
IEC 60068-2-78 : 2012	Environmental Testing - Part 2 - 78 : Tests -Test Cab : Damp heat, steady state	temperature : (20 ~ 50) ℃ humidity : (80 ~ 98) % R.H.	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
IEC 60068-3-1 : 2011	Environmental Testing - Part 3 - 1 : Supporting documentation and guidance - Cold and dry heat tests	air volume : (0 ~ 3.5) m/s temperature : (40 ~ 150) ℃	N
IEC 60068-3-3 : 1991	Environmental Testing - Part 3 - 3 : Guidance - Seismic test methods for equipments	vibration : (20 ~ 35) Hz acceleration : 15 ㎧	N
IEC 60068-3-4 : 2001	Environmental Testing - Part 3 - 4 : Supporting documentation and guidance - Damp heat tests	pH : 6.0 ~ 7.2.	N
IEC 60068-3-5 : 2001	Environmental Testing - Part 3 - 5 : Supporting documentation and guidance - Confirmation of the performance of temperature chamber	sensor response time : (10 ~ 40) s sensor measurement rage : (-200 ~ 200) ℃	N
IEC 60068-3-6 : 2001	Environmental Testing - Part 3 - 6 : Supporting documentation and guidance - Confirmation of the performance of temperature/humidity chambers	temperature : (10 ~ 90) ℃ humidity : (10 ~ 100) % R.H.	N
IEC 60068-3-7 : 2001	Environmental Testing - Part 3 - 7 : Supporting documentation and guidance - Measurements in temperature chambers for tests A and B (with load)	temperature range : (-50 ~ 5) ℃, (30 ~ 250) ℃	N
KS C 0233 : 2001	Combined Cold / Low Air Pressure tests methods	Temperature : (-40 ~ 55)℃ Pressure : (40 ~ 700) mbar	N
KS C 0251 : 2001	Environmental testing methods (Electric, Electronic) robustness of terminations and integral mounting devices test methods	(0.25 ~ 8) N	N

No. KT005

03.014 environment and reliability

Test method	Standard designation	Test range	Field testing
KS C 0261 : 1995	Needle flame(injection type burner) test methods	spark length (12 ± 1) ㎜ pipe length 35 ㎜, inside diameter (0.5 ± 0.1) ㎜ outside diameter 0.9 ㎜	N
KS C IEC 60068-2-68 : 2003	Environmental testing - Part 2 : Tests - Test L : Dust and sand	-	N
KS D 9502 : 2009	Method of salt spray testing (NSS, AASS, CASS)	-	N
KS C 5078 : 2013	Video data recording systems for road vehicle accidents (Exception) 7.2.4.2	Input voltage DC 12 V DC 24 V	N

No. KT005

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03 Electric Test

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0019 : 2017	22.9 ㎸ Concentric Neutral Type Crosslinked Polyethylene Insulated Halogen free Polyolefin Jacketed Water - proof Power Cables (FR CNCO-W) 8.1 Visual Inspection 8.2 Construction test 8.3 Electrical Characteristic Test 8.4 Physical Characteristic Test (8.4.1 Conductor Watertightness test, 8.4.2 Neutral Conductor Watertightness test, 8.4.3 Compound Dropping Test, 8.4.8 Flame spread Test, 8.4.14 Insulation Shield Removability Test, 8.4.18 Dissipation Factor, 8.4.19 Dissipation Factor Characterization Test) 8.5 High Voltage Time Test (HVTT)	Cross - sectional Area : 60 ㎟, 200 ㎟, 325 ㎟, 600 ㎟	N
ES-6145-0025 : 2017	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Cables (TR CNCE-W) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test 7.4 Physical Characteristic Test (7.4.1 Watertightness test, 7.4.6 Insulation Shield Removability Test) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test (AWTT) 7.6 Thermomechanical Qualification Test 7.7 CV Extrusion Qualification Test	Cross - sectional Area : 60 ㎟, 200 ㎟, 325 ㎟, 600 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
ES-6145-0026 : 2017	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Aluminium Cables (TR CNCE - W / AL) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test 7.4 Physical Characteristic Test (7.4.1 Watertightness test, 7.4.6 Insulation Shield Removability Test) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test (AWTT) 7.6 Thermomechanical Qualification Test 7.7 CV Extrusion Qualification Test	Cross - sectional Area : 95 ㎟, 240 ㎟, 400 ㎟	N
ES-6145-0028 : 2018	Testing Methods for 22.9 ㎸ Power Cables 3.1 Visual inspection 3.2 Construction test 3.3 Electrical characteristic test 3.4.1 Water penetration test 3.5 High voltage time test and accelerated water treeing test 3.6 Thermomechanical qualification test 3.7 CV extrusion qualification test	cross section area (㎟) 60, 200, 325, 600 (Cu) 95, 240, 400 (Al)	N
GS-6145-0063 : 2007	22.9 ㎸ FR - CO / W(Water - proof type power cable) 5.1 Test Method (A. Visual Inspection, B. Construction test, C. Insulation Resistance, D. Capacitance, E. AC Voltage Test, F. Conductor Resistance, G. Dissipation Factor, H. Dissipation Factor Characterization Test, I. Long Term AC Voltage Test, J. Impulse Voltage Test, N. Flame spread Test, T. Partial Discharge Test, U. Conductor Watertightness test)	Cross - sectional Area : 600 ㎟	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
GS-6145-0068 : 2014	22.9 ㎸ Concentric Neutral Type Water Tree Retardant XLPE Insulated Halogen free Polyolefin Jacketed Water - proof Power Aluminium Cables(FR CNCO - W / AL) 7.1 Visual Inspection 7.2 Construction test 7.3 Electrical Characteristic Test 7.4 Physical Characteristic Test (7.4.1 Watertightness test, 7.4.6 Insulation Shield Removability Test, 7.4.7 Flame spread Test) 7.5 High Voltage Time Test (HVTT) and Accelerated Water Treeing Test(AWTT) 7.6 Thermomechanical Qualification Test 7.7 CV Extrusion Qualification Test	Cross - sectional Area : 95 ㎟, 240 ㎟, 400 ㎟	N
GS-6145-0097 : 2018	22.9 ㎸ Concentric Neutral Type Eco - friendly Polypropylene Insulated Extruded - to - Fill Polyethylene Jacketed Water - proof Power Aluminium Cables 7.1 Visual inspection 7.2 Construction test 7.3 Electrical characteristic test 7.4.1 Water penetration test 7.5.1 Accelerated water treeing test 7.6 Thermomechanical qualification test 7.7 CV extrusion qualification test	cross section area (㎟) 95, 240, 400	N
IEC 60332-3-24 Ed. 1.1 b : 2009	Tests on electric and optical fibre cables under fire conditions - Part 3 - 24 : Test for vertical flame spread of vertically - mounted bunched wires or cables - Category C	1.5 L/m or less	N
IEC 61034-2 Ed. 3.1 b : 2013	Measurement of smoke density of cables burning under defined conditions - Part 2 : Test procedure and requirements	ethanol : (90 ± 1) % methanol : (4 ± 1) % distilled water : (6 ± 1) %	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60332-3-24 : 2003	Tests on electric cables under fire conditions - Part 3 - 24 : Test for vertical flame spread ofvertically - mounted bunched wires or cables - Category C	1.5 L/m or less	N
KS C IEC 61034-2 : 2013	Measurement of smoke density of cables burning under defined conditions - Part 2 : Test procedure and requirements	ethanol : (90 ± 1) % methanol : (4 ± 1) % distilled water : (6 ± 1) %	N
IEC 60502-2 Ed. 3.0 b : 2014	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) - Part 2 : Cables for rated voltages from 6 kV (Um = 7.2 kV) up to 30 kV(Um = 36 kV) 16.2 Electrical resistance of conductors 16.3 Partial discharge test 16.4 Voltage test 16.5 Electrical test on oversheath of the cable 17.9 Voltage test for 4 h 18. Type tests, electrical 19.24 Water penetration test	36 kV or less	N
KS C IEC 60502-2 : 2016	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV(Um = 36 kV) - Part 2 : Cables for rated voltages from 6 kV (Um = 7.2 kV) up to 30 kV(Um = 36 kV) 16.2 Electrical resistance of conductors 16.3 Partial discharge test 16.4 Voltage test 17.9 Voltage test for 4 h 18. Type tests, electrical 19.14.2 Test for vertical flame spread of vertically - mounted bunched wires or cables 19.22 Water penetration test 19.23 Measurement of smoke density	36 kV or less	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 62821-3 : 2014	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 3 : Flexible cables(cords) Annex A Table A.1 8.2 Smoke emission Test	450 V / 750 V or less	N
IEC 62821-3 : 2015	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part3 : Flexible cables(cords) Annex A Table A.1 8.2 Smoke emission Test	450 V / 750 V or less	N
KC 62821-3 : 2016	Electric cables - Halogen - free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450 V / 750 V - Part 3 : Flexible cables(cords) Annex A Table A.1 8.2	450 V / 750 V or less	N
IEC 60092-354 Ed3.0 : 2014	Electrical installations in ships - Part 354 : Single - and three - core power cables with extruded solid insulation for rated voltages 6 kV (Um = 7.2 kV) up to 30 kV (Um = 36 kV) Table 3 Voltage test, Voltage test on sheath, Insulation resistance test, Partial discharge test, High voltage sequence test, Insulation resistance measurement at maximum rated temperature, Increase in a.c. capacitance after immersion in water, High - voltage test for 4 h, Flame - spread tests : IEC 60332 - 3 - 22	Rated voltage 6 kV ~ 30 kV	N
IEC 60092-376 Ed2.0 : 2003	Electrical installations in ships - Part 376 : Cables for control and instrumentation circuits 150 V / 250 V (300 V) 17.3 g) Bunched cable flame spread test 17.3 h) Smoke (light) transmittance of completed cable	Rated voltage 150 V / 250 V (300 V)	N

No. KT005

03.001 Cables, Wires and Equipment for use electrical-line

Test method	Standard designation	Test range	Field testing
KS C IEC 60092-354 : 2003	Electrical installations in ships - Part 354 : Single - and three - core power cables with extruded solid insulation for rated voltages 6 kV, 10 kV and 15 kV 18.3.3, 18.3.4, 18.3.5, 18.3.6, 18.3.7, 18.3.8	Rated voltage (3.6 / 6(7.2)) kV, (6 / 10(12)) kV, (8.7 /15(17.5)) kV	N
IEC 60332-3-21 : 2000	Tests on electric cables under fire conditions - Part 3 - 21 : Test for vertical flame spread of vertically - mounted bunched wires or cables - Category A F/R	7 l/m	N
IEC 60332-3-22 Ed1.1 : 2009	Tests on electric cables under fire conditions - Part 3 - 22 : Test for vertical flame spread of vertically - mounted bunched wires or cables - Category A	7 l/m	N
IEC 60332-3-23 Ed1.1 : 2009	Tests on electric cables under fire conditions - Part 3 - 23 : Test for vertical flame spread of vertically - mounted bunched wires or cables - Category B	3.5 l/m	N
IEC 60332-3-25 Ed1.1 : 2009	Tests on electric cables under fire conditions - Part 3 - 25 : Test for vertical flame spread of vertically - mounted bunched wires or cables - Category D	0.5 l/m	N
KS C IEC 60332-3-21 : 2003	Tests on electric cables under fire conditions - Part 3 - 21 : Test for vertical flame spread of vertically - mounted bunched wires or cables, Category A F / R	7 l/m	N
KS C IEC 60332-3-22 : 2003	Tests on electric cables under fire conditions - Part 3 - 22 : Test for vertical flame spread ofvertically - mounted bunched wires or cables - Category A	7 l/m	N
KS C IEC 60332-3-23 : 2003	Tests on electric cables under fire conditions - Part 3 — 23 : Test for vertical flame spread ofvertically - mounted bunched wires or cables - Category B	3.5 l/m	N
KS C IEC 60332-3-25 : 2003	Tests on electric cables under fire conditions - Part 3 - 23 : Test for vertical flame spread ofvertically - mounted bunched wires or cables - Category B	0.5 l/m	N
BS EN 50305 : 2002	Railway applications. Railway rolling stock cables having special fire performance. Test methods 9.1 Flame propagation	0.5 l/m	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 61439-1 Ed2.0 : 2011	Low - voltage switchgear and controlgear assemblies - Part 1 : General rules (Exception) 8.2.2 Protection against contact with live parts, ingress of solid foreign bodies and water 10.3 Degree of protection of assembles	a.c. 600 V, 6 500 A or less	N
IEC 61439-2 Ed2.0 : 2011	Low - voltage switchgear and controlgear assemblies - Part 2 : Power switchgear and controlgear assemblies (Exception) 8.2.2 Protection against contact with live parts, ingress of solid foreign bodies and water 10.3 Degree of protection of assembles	a.c. 600 V, 6 500 A or less	N
IEC 61439-3 : 2012	Low - voltage switchgear and controlgear assemblies - Part 3 : Distribution boards intended to be operated by ordinary persons(DBO)	a.c. 600 V, 6 500 A or less	N
IEC 61439-4 : 2012	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites (ACS)	a.c. 600 V, 6 500 A or less	N
IEC 61439-5 Ed2.0 : 2014	Low - voltage switchgear and controlgear assemblies - Part 5 : Assemblies for power distribution in public networks	a.c. 600 V, 6 500 A or less	N
IEC 61439-6 : 2012	Low - voltage switchgear and controlgear assemblies - Part 6 : Busbar trunking systems (busways) (Exception) 8.2.2 Protection against contact with live parts, ingress of solid foreign bodies and water 10.3 Degree of protection of assembles	a.c. 600 V, 6 500 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60898-1 Ed2.0 : 2015	Electrical accessories - Circuit - breakers for overcurrent protection for household and similar installations - Part 1 : Circuit - breakers for a.c. operation	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 60947-1 Ed5.2 : 2014	Low - voltage switchgear and controlgear - Part1 : General rules (Exception) 8.2.3, Enclosures for equipment Annex C.	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
IEC 60947-2 Ed5.0 : 2016	Low - voltage switchgear and controlgear - Part 2 : Circuit - breakers	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
IEC 60947-3 Ed3.2 : 2015	Low - voltage switchgear and controlgear - Part 3 : Switches, disconnectors, switch - disconnectors and fuse combination units (Exception) 7.1.12 Degrees of protection of enclosed equipment	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
IEC 60947-4-1 Ed3.1 : 2012	Low - voltage switchgear and controlgear - Part 4 - 1 : Contactors and motor - starters - Electromechanical contactors and motor - starters (Exception) 8.1.12 Degrees of protection of enclosed equipment	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
IEC 61008-1 Ed3.0 : 2016	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1 : General rules	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61008-2-1 : 1990	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCB's). Part 2 - 1 : Applicability of the general rules to RCCB's functionally independent of line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 61008-2-2 : 1990	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCB's). Part 2 - 2 : Applicability of the general rules to RCCB's functionally dependent on line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61009-1 Ed3.0 : 2014	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1 : General rules	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61009-2-1 : 1991	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses(RCBO's) - Part 2 - 1 : Applicability of the general rules to RCBO's functionally independent of line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61009-2-2 : 1991	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses(RCBO's) - Part 2 - 2 : Applicability of the general rules to RCBO's functionally dependent on line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61540 Ed1.1 : 1999	Electrical accessories - Portable residual current devices without integral overcurrent protecton for household and similar use (PRCDs)	a.c. 440 V, 16 A or less, rupturing capacity : 50 000 A or less	N
K 60439-1 : 2002	Low - voltage switchgear and controlgear assemblies - Part 1 : Type - tested and partially type - tested assemblies (Exception) 8.2.7 Verification of degree of protection	a.c. 600 V, 6 500 A or less	N
KC 60439-2 : 2015	Low - voltage switchgear and controlgear assemblies - Part 2 : Particular requirements for busbar trunking systems (busways) (Exception) 8.2.7 Verification of degree of protection	a.c. 600 V, 6 500 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 60439-3 : 2015	Low - voltage switchgear and controlgear assemblies - Part 3 : Particular requirements for low - voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons haveaccess for their use - Distribution boards	a.c. 600 V, 6 500 A or less	N
KC 60439-4 : 2015	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites	a.c. 600 V, 6 500 A or less	N
KC 60439-5 : 2015	Low - voltage switchgear and controlgear assemblies - Part 5 : Particular requirements for assemblies intended to be installed outdoors in public places - Cable distribution cabinets(CDCs) for power distribution in networks	a.c. 600 V, 6 500 A or less	N
KC 60898-1 : 2015	Electrical accessories - Circuit - breakers for overcurrent protection for household and similar installations - Part 1 : Circuit - breakers for a.c. operation	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
K 60947-1 : 2011	Low - voltage switchgear and controlgear - Part 1 : General rules (Exception) 8.2.3 Enclosures for equipment Annex C.	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KC 60947-2 : 2015	Low - voltage switchgear and controlgear - Part 2 : Circuit - breakers	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KC 60947-4-1 : 2015	Low - voltage switchgear and controlgear - Part 4 - 1 : Contactors and motor-starters - Electromechanical contactors and motor - starters (Exception) 8.1.12 Degrees of protection of enclosed equipment	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KC 61008-1 : 2015	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1 : General rules	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KC 61008-2-1 : 2015	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 2 - 1 : Applicability of the general rules to RCCB's functionally independent of line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KC 61008-2-2 : 2015	Residual current operated circuit - breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 2 - 2 : Applicability of the general rules to RCCB's functionally dependent on line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
K 61009-1 : 2011	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1 : General rules	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KC 61009-2-1 : 2015	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2 - 1 : Applicability of the general rules to RCBO's functionally independent of line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KC 61009-2-2 : 2015	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBO's)- Part 2 - 2 : Applicability of the general rules to RCBO's functionally dependent on line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KS C 4613 : 2011	Circuit - breaker incorporating residual current protection for industrial uses(CBR)	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C 4621 : 2011	Residual current operated circuit - breakers with integral overcurrent protection for household uses(RCBO)	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C 4620 : 2014	Low - voltage Air Circuit - Breaker(ACB)	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C 8321 : 2011	Molded case circuit - breaker for industrial uses(MCCB)	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C 8332 : 2011	Miniature circuit - breaker for overcurrent protection for household uses(MCB)	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C 8326 : 2016	Low voltage panelboards for household use	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60439-1 : 2003	Low - voltage switchgear and controlgear assemblies - Part 1 : Type - tested and partially type - tested assemblies (Exception) 8.2.7 Verification of degree of protection	a.c. 600 V, 6 500 A or less	N
KS C IEC 60439-2 : 2008	Low - voltage switchgear and controlgear assemblies - Part 2 : Particular requirements for busbar trunking systems(busways) (Exception) 8.2.7 Verification of degree of protection	a.c. 600 V, 6 500 A or less	N
KS C IEC 60439-3 : 2003	Low - voltage switchgear and controlgear assemblies - Part 3 : Particular requirements for low - voltage switchgear and control gearassemblies intended to be installed in places where unskilled persons haveaccess for their use - Distribution boards	a.c. 600 V, 6 500 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60439-4 : 2016	Low - voltage switchgear and controlgear assemblies - Part 4 : Particular requirements for assemblies for construction sites	a.c. 600 V, 6 500 A or less	N
KS C IEC 60439-5 : 2003	Low - voltage switchgear and controlgear assemblies - Part 5 : Particular requirements for assemblies intended to be installed outdoors in public places - Cable distribution cabinets(CDCs) for power distribution in networks	a.c. 600 V, 6 500 A or less	N
KS C IEC 60898-1 : 2014	Electrical accessories - Circuit - breakers for overcurrent protection for household and similar installations - Part 1 : Circuit - breakers for a.c. operation	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60947-1 : 2014	Low - voltage switchgear and controlgear - Part 1 : General rules (Exception) 8.2.3 Enclosures for equipment Annex C.	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60947-2 : 2014	Low - voltage switchgear and controlgear - Part 2 : Circuit - breakers	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60947-4-1 : 2016	Low - voltage switchgear and controlgear - Part 4 - 1 : Contactors and motor - starters - Electromechanical contactors and motor - starters (Exception) 8.1.12 Degrees of protection of enclosed equipment	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 61009-1 : 2017	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1 : General rules	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 61009-2-1 : 2014	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2 - 1 : Applicability of the general rules to RCBO's functionally independent of line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 61009-2-2 : 2014	Residual current operated circuit - breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2 - 2 : Applicability of the general rules to RCBO's functionally dependent on line voltage	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61643-11 : 2011	Low - voltage surge protective device - Part 11 : Surge protective devices connected to low-voltage power systems - Requirements and test methods Ed 1.0	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 61643-21 : 2012	Low - voltage surge protective device - Part 21 : Surge protective devices connected to telecommunications and signaling networks - Performance requirements and testing methods Ed 1.2	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 61643-311 Ed 2.0 : 2013	Components for low - voltage surge protective devices - Part 311 : Performance requirements and test circuits for gas discharge tubes (GDT)	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 61643-321 : 2001	Components for low - voltage surge protective devices - Part 321 : Specification for avalanche breakdown diode(ABD) Ed 1.0	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 61643-331 : 2003	Components for low - voltage surge protective devices - Part 331 : Specification for metal oxide varistors (MOV) Ed 1.0	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 61643-341 : 2001	Components for low - voltage surge protective devices - Part 341 : Specification for thyristor surge suppressors (TSS) Ed 1.0	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 61643-11 : 2012	Low - voltage surge protective devices - Part 11 : Surge protective devices connected to low - voltage power systems - Requirements and test methods	(10 / 350) μs, 100 kA (8 / 20) μs, 200 kA (1.2 / 50) μs, 20 kV (8 / 20) μs, 10 kA	N
IEC 60255-12 Ed.1.0 : 1980	Electrical relays - Part 12 : Directional relays and power relays with two input energizing quantities	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 60255-13 Ed.1.0 : 1980	Electrical relays - Part 13 : Biased (percentage) differential relays	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 60255-27 Ed.2.0 : 2013	Measuring relays and protection equipment - Part 27 : Product safety requirements (Exception) 10.6.2.1, 10.6.2.2, 10.6.2.3, 10.6.2.4, 10.6.2.6 10.6.5.2, 10.6.5.5	1Ø 5 kV frequency : 5 Hz ~ 1 000 Hz Max : 8 G	N
IEC 60255-121 Ed.1.0 : 2014	Measuring relays and protection equipment - Part 121 : Functional requirements for distance protection	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 60255-127 Ed.1.0 : 2010	Measuring relays and protection equipment - Part 127 : Functional requirements for over / under voltage protection	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 60255-149 Ed.1.0 : 2013	Measuring relays and protection equipment - Part 149 : Functional requirements for thermal electrical relays	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 60255-151 Ed.1.0 : 2009	Measuring relays and protection equipment - Part 151 : Functional requirements for over / under current protection	3Ø : 32 A, 80 VA 6Ø : 16 A, 40 VA 4Ø : 300 V, 75 VA	N
IEC 62271-103 Ed.1.0 : 2011	High - voltage switchgear and controlgear - Part 103 : Switches for rated voltages above 1 kV up to and including 52 kV 7.1 Dielectric test on the main circuit (IEC 62271 - 1) 7.2 Tests on auxiliary and control circuits (IEC 62271 - 1) 7.3 Measurement of the resistance of the main circuit(IEC 62271 - 1) 7.4 Tightness test(IEC 62271 - 1) 7.5 Design and visual checks(IEC 62271 - 1) 7.101 Mechanical operating tests	A.C. 400 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 62271-1 Ed.1.1 : 2011	High - voltage switchgear and controlgear - Part 1 : Common specifications 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks	A.C. 400 kV or less	N
IEC 62271-100 Ed.2.1 : 2012	High - voltage switchgear and controlgear - Part 100 : Alternating current circuit - breakers 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks 7.101 Mechanical operating tests	A.C. 400 kV or less	N
IEC 62271-102 Ed.1.2 : 2013	High - voltage switchgear and controlgear - Part 102 : Alternating current disconnectors and earthing switches 7.1 Dielectric test on the main circuit 7.2 Dielectric tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks 7.101 Mechanical operating tests	A.C. 400 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 62271-105 Ed.2.0 : 2012	High - voltage switchgear and controlgear - Part 105 : Alternating current switch - fuse combinations for rated voltages above 1 kV up to and including 52 kV 7.1 Dielectric test on the main circuit (IEC 62271 - 1) 7.2 Tests on auxiliary and control circuits (IEC 62271 - 1) 7.3 Measurement of the resistance of the main circuit(IEC 62271 - 1) 7.4 Tightness test(IEC 62271 - 1) 7.5 Design and visual checks(IEC 62271 - 1) 7.101 Mechanical operating tests	A.C. 400 kV or less	N
IEC 62271-106 Ed.1.0 : 2011	High - voltage switchgear and controlgear - Part 106 : Alternating current contactors, contactor - based controllers and motor - starters 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks 7.101 Operating tests 7.102 Tests dependent on starter type	A.C. 400 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 62271-200 Ed.2.0 : 2011	High - voltage switchgear and controlgear - Part 200 : AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks 7.101 Partial discharge measurement 7.102 Mechanical operation tests 7.103 Pressure tests of gas - filled compartments 7.104 Tests of auxiliary electrical, pneumatic and hydraulic devices 7.105 Tests after erection on site 7.106 Measurement of fluid conditions after filling on site	A.C. 400 kV or less	N
IEC 62271-203 Ed.2.0 : 2011	High - voltage switchgear and controlgear - Part 203 : Gas - insulated metal-enclosed switchgear for rated voltage above 52 kV 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks 7.101 Pressure tests of enclosures 7.102 Mechanical operation tests 7.103 Tests on auxiliary circuits, equipment and interlocks in the control mechanism 7.104 Pressure test on partition	A.C. 400 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60076-1 Ed.3.0 : 2011	Power transformers - Part 1 : General 11.2 Measurement of winding resistance 11.3 Measurement of voltage ratio and check of phase displacement 11.4 Measurement of short - circuit impedance and load loss 11.5 Measurement of no - load loss and current 11.7 Tests on on-load tap changers - operation test 11.8 Leak testing with pressure for liquid - immersed transformers (tightness test) 11.12 Check of core and frame insulation for liquid immersed transformers with core or frame insulation 11.1.2.1 e) Dielectric routine tests(IEC 60076 - 3) i) Check of the ratio and polarity of built - in current transformers	A.C. 400 kV or less 110 V - 22 900 V 10 VA - 3 000 kVA	N
IEC 60076-3 Ed.3.0 : 2013	Power transformers - Part 3 : Insulation levels, dielectric tests and external clearances in air 7 Insulation requirements and dielectric test - Basic rules 10 Insulation of auxiliary wiring 11 Separate source AC withstand voltage test 12 Induced AC Voltage tests(ACSD, ACLD) 13 Lighting Impulse(LI) test	A.C 400 kV D.C 1 200 kV	N
IEC 60076-4 Ed.1.0 : 2002	Power transformers - Part 4 : Guide to the lightning impulse and switching impulse testing - Power transformers and reactors 7 Lighting Impulse tests	D.C. 1 200 kV or less	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60076-11 Ed.1.0 : 2004	Power transformers - Part 11 : Dry - type transformers 15 Measurement of winding resistance 16 Measurement of voltage ratio and check of phase displacement 18 Measurement of no - load loss and current 19 Separate - source AC withstand voltage test 20 Induced AC Voltage tests 22 Partial discharge measurement	A.C. 400 kV or less 110 V - 22 900 V 10 VA - 3 000 kVA	N
KS C IEC 60076-1 : 2013	Power transformers - Part 1 : General 11.1.2 Routine tests a) Measurement of winding resistance(11.2) b) Measurement of voltage ratio and check of phase displacement(11.3) c) Measurement of short - circuit impedance and load loss(11.4) d) Measurement of no-load loss and current(11.5) e) Dielectric routine tests (KS C IEC 60076 - 3) f) Tests on on-load tap changers - operation test(11.7)	A.C. 400 kV or less 110 V - 22 900 V 10 VA - 3 000 kVA	N
KS C IEC 60076-3 : 2002	Power transformers - Part 3 : Insulation levels, dielectric tests and external clearances in air 7 Insulation requirements and dielectric test - Basic rules 11 Separate source AC withstand voltage test 12 nduced AC Voltage tests(ACSD, ACLD) 13 Lighting Impulse(LI) test	A.C. 400 kV or less 110 V - 22 900 V 10 VA - 3 000 kVA D.C. 1 200 kV	N
KS C IEC 60076-4 : 2008	Power transformers - Part 4 : Guide to the lightning impulse and switching impulse testing - Power transformers and reactors 7 Lighting Impulse tests	A.C. 1 200 kV	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60076-11 : 2008	Power transformers - Part 11 : Dry - type transformers 15 Measurement of winding resistance 16 Measurement of voltage ratio and check of phase displacement 18 Measurement of no - load loss and current 19 Separate - source AC withstand voltage test 20 Induced AC Voltage tests 21 Partial discharge measurement	A.C. 400 kV or less 110 V - 22 900 V 10 VA - 3 000 kVA	N
IEC 61869-1 Ed.1.0 : 2007	Instrument transformers - Part 1 : General requirements 7.3.1 Power - frequency voltage withstand tests on primary terminals 7.3.2 Partial discharge measurement 7.3.3 Power - frequency voltage withstand tests between sections 7.3.4 Power - frequency voltage withstand tests on secondary terminals 7.3.5 Test for accuracy 7.3.6 Verification of markings 7.3.7 Tightness test	A.C. 10 000 A AC 245 kV	N
IEC 61869-2 Ed.1.0 : 2012	Instrument transformers - Part 1 : Current transformers 7.3.1 Power - frequency voltage withstand tests on primary terminals 7.3.5 Tests for accuracy 7.3.201 Determination of the secondary winding resistance (Rct) 7.3.202 Determination of the secondary loop time constant (Ts) 7.3.203 Test for rated knee point e.m.f. (Ek) and exciting current at Ek 7.3.204 Inter - turn overvoltage test	A.C. 10 000 A	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 61869-3 Ed.1.0 : 2011	Instrument transformers - Part 3 : Additional requirements for inductive voltage transformers 7.3.1 Power - frequency voltage withstand tests on primary terminals 7.3.2 Partial discharge measurements 7.3.5 Test for accuracy	AC 245 kV	N
KS C IEC 60044-1 : 2003	Instrument transformers - Part 1 : Current transformers 8 Routine tests 8.1 Verification of markings 8.2 Power - frequency voltage withstand tests on primary terminals, Partial discharge measurement 8.3 Power - frequency voltage withstand tests between sections, Power - frequency voltage withstand tests on secondary terminals 8.4 Inter - turn overvoltage test	A.C. 10 000 A	N
KS C IEC 60044-2 : 2003	Instrument transformers - Part 2 : inductive voltage transformers 9 Routine tests 9.1 Verification of markings 9.2 Power - frequency voltage withstand tests on primary terminals, Partial discharge measurement 9.3 Power - frequency voltage withstand tests between sections, Power - frequency voltage withstand tests on secondary terminals	AC 245 kV	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
IEC 60044-1 Ed.1.2 : 2003	Instrument transformers - Part 1 : Current transformers 8.1 Verification of terminal markings 8.2 Power - frequency withstand tests on primary windings and partial discharge measurement 8.3 Power - frequency withstand tests between sections of primary and secondary windings and on secondary windings 8.4 Inter - turn overvoltage test 11.5 Routine tests for accuracy of measuring current transformers 12.4 Type and routine tests for current error and phase displacement of protective transformers 12.6 Routine tests for composite error 13.4 Type and routine tests for current error and phase displacement of class PR protective transformers 14.4 Routine tests for class PX protective transformers	A.C. 10 000 A	N
IEC 60099-4 Ed.3.0 : 2014	Surge arresters - Part 4 : Metal - oxide surge arresters without gaps for a.c. systems 9.1 Routine tests a) Measurement of reference voltage(Uref) b) Residual voltage test c) d) Internal partial discharge test g) Measurement of Resistance / Capacitance	(8 / 20) μs 200 kA (10 / 350) μs 100 kA	N
IEC 60282-1 Ed.7.1 : 2014	High - voltage fuses - Part 1 : Current-limiting fuses 8 Routine tests - The provision of cool resistance values	(0 ~ 100) Ω	N
IEC 60282-2 Ed.3.0 : 2008	High - voltage fuses - Part 2 : Expulsion fuses 10 Acceptance tests a) Dimensional verification b) Measurement of resistance of fuse - links	(0 ~ 100) Ω	N

No. KT005

03.002 Installation accessories and connection devices

Test method	Standard designation	Test range	Field testing
KS C IEC 60282-2 : 2003	High - voltage fuses - Part 2 : Expulsion fuses 9 Acceptance tests a) Dimensional verification b) Measurement of resistance of fuse - links	(0 ~ 100) Ω	N
KS C IEC 60694 : 2002	High - voltage switchgear and controlgear - Part 1 : Common specifications 7.1 Dielectric test on the main circuit 7.2 Tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.4 Tightness test 7.5 Design and visual checks	A.C. 400 kV or less	N
KS C IEC 60129 : 2002	High - voltage switchgear and controlgear - Part 102 : Alternating current disconnectors and earthing switches 7.1 Dielectric test on the main circuit 7.2 Dielectric tests on auxiliary and control circuits 7.3 Measurement of the resistance of the main circuit 7.101 Mechanical operating tests	A.C. 400 kV or less	N
KS C IEC 60099-4 : 2012	Surge arresters - Part 4 : Metal - oxide surge arresters without gaps for a.c. systems 9.1 Routine tests a) Measurement of reference voltage(Uref) b) Residual voltage test c) Internal partial discharge test	(8 / 20) μs 200 kA (10 / 350) μs 100 kA	N
KS C IEC 60947-5-1 : 2012	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices	AC 600 V or less AC 150 A or less Short - circuit switching capacity 50 kA or less	N
KC 60947-5-1 : 2016	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices	AC 600 V or less AC 150 A or less Short - circuit switching capacity 50 kA or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
IEC 60947-5-1 Ed.4.0 : 2016	Low - voltage switchgear and controlgear - Part 5 - 1 : Control circuit devices and switching elements - Electromechanical control circuit devices	AC 600 V or less AC 150 A or less Short - circuit switching capacity 50 kA or less	N
IEC 60127-1 Ed2.2 : 2015	Miniature fuses - Part 1 : Definitions for miniature fuses and general requirements for miniature fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
IEC 60127-2 Ed3.0 : 2014	Miniature fuses - Part 2 : Cartridge fuse - links (Exception) A3.3 Solderability of terminations A3.4 Resistance to soldering heat	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
IEC 60127-3 Ed3.0 : 2015	Miniature fuses - Part 3 : Sub - miniature fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
IEC 60127-4 Ed3.2 : 2012	Miniature fuses - Part 4 : Universal modular fuse - links (UMF) - Through - hole and surface mount types (Exception) 8.6 Solderability of terminations 8.7 Resistance to soldering heat	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
IEC 60127-6 Ed2.0 : 2014	Miniature fuses - Part 6 : Fuse - holders for miniature cartridge fuse - links (Exception) 12.6.2 Terminals for soldering	(a.c. / d.c.) 250 V, 10 A or less	N
IEC 60269-1 Ed4.2 : 2014	Low - voltage fuses - Part 1 : General requirements (Exception) Table 22, Table E.1, Table E.2, Table E.3	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
IEC 60269-2 Ed5.1 : 2016	Low - voltage fuses - Part 2 : Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to K	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
IEC 60269-3 Ed.4.0 : 2013	Low-voltage fuses - Part 3 : Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) - Examples of standardized systems of fuses A to F	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
IEC 60691 Ed4.0 : 2015	Thermal - links - Requirements and application guide	a.c. 250 V, 15 A or less, operated temperature : 300 ℃ or less	N
IEC 60934 Ed3.2 : 2013	Circuit - breakers for equipment (CBE)	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N
IEC 61095 Ed2.0 : 2009	Electromechanical contactors for household and similar purposes	a.c. 440 V, 63 A or less, rupturing capacity : 50 000 A or less	N
K 60127-1 : 2011	Miniature fuses - Part 1 : Definitions for miniature fuses and general requirements for miniature fuse - links	a.c. 600 V, 600 A or less, rupturing capacity : 50 000 A or less	N
KC 60127-2 : 2015	Miniature fuses - Part 2 : Cartridge fuse - links (Exception) A3.3 Solderability of terminations	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KC 60127-3 : 2015	Miniature fuses - Part 3 : Sub - miniature fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KC 60127-4 : 2016	Miniature fuses - Part 4 : Universal modular fuse - links (UMF) - Through-hole and surface mount types (Exception) 8.6 Solderability of terminations	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KC 60127-6 : 2015	Miniature fuses - Part 6 : Fuse - holders for miniature cartridge fuse - links (Exception) 12.6.2 Terminals for soldering	(a.c. / d.c.) 250 V, 10 A or less	N
KC 60269-1 : 2015	Low - voltage fuses - Part 1 : General requirements	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
KC 60269-2 : 2015	Low - voltage fuses - Part 2 : Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to I	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
K 60269-3 : 2008	Low - voltage fuses - Part 3 : Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) - Examples of standardized systems of fuses A to F	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
KC 60691 : 2016	Thermal - links - Requirements and application guide	a.c. 250 V, 15 A or less, operated temperature : 300 ℃ or less	N
KC 60934 : 2015	Circuit - breakers for equipment (CBE)	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
K 61095 : 2002	Electromechanical contactors for household and similar purposes	a.c. 440 V, 63 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60127-1 : 2014	Miniature fuses - Part 1 : Definitions for miniature fuses and general requirements for miniature fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KS C IEC 60127-2 : 2005	Miniature fuses - Part 2 : Cartridge fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KS C IEC 60127-3 : 2005	Miniature fuses - Part 3 : Sub - miniature fuse - links	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KS C IEC 60127-4 : 2005	Miniature fuses - Part 4 : Universal modular fuse - links (UMF) - Through-hole and surface mount types (Exception) 8.6 Solderability of terminations 8.7 Resistance to soldering heat	(a.c / dc) 250 V, 10 A or less, rupturing capacity : 50 000 A or less(ac)	N
KS C IEC 60127-6 : 2005	Miniature fuses - Part 6 : Fuse - holders for miniature cartridge fuse - links (Exception)12.6.2 Terminals for soldering	(a.c. / d.c.) 250 V, 10 A or less	N
KS C IEC 60269-1 : 2014	Low - voltage fuses - Part 1 : General requirements	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.004 Electrical material and components

Test method	Standard designation	Test range	Field testing
KS C IEC 60269-2 : 2009	Low - voltage fuses - Part 2 : Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to I	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60269-3 : 2014	Fixed capacitors for use in electronic equipment - Part 3 : Sectional specification : Surface mount fixed tantalum electrolytic capacitors with manganese dioxide solid electrolyte	a.c. 600 V, 400 A or less, rupturing capacity : 50 000 A or less	N
KS C IEC 60691 : 2005	Thermal - links - Requirements and application guide	a.c. 250 V, 15 A or less, operated temperature : 300 ℃ or less	N
KS C IEC 60934 : 2017	Circuit - breakers for equipment (CBE)	a.c. 440 V, 125 A or less, rupturing capacity : 50 000 A or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
Ministry of commerce, Industry and energy notice No.2016-137 (2016.07.14.)	The provisions for Certification of efficiency energy - using appliances Program	-	-
	24. Transformer	110 V ~ 22 900 V 10 V A ~ 3 000 kVA	N
KS B ISO 5151 : 2012	Non-ducted air conditioners and heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
KS B ISO 13253 : 2012	Ducted air - conditioners and air - to - air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
KS B ISO 15042 : 2006	Multiple split-system air-conditioners and air - to - air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
KS C 9306 : 2011	Air conditioners	1 750 W ~ 43 500 W	N
ISO 5151 : 2017	Non - ducted air conditioners and heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
ISO 13253 : 2017	Ducted air - conditioners and air - to - air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
ISO 15042 : 2017	Multiple split - system air - conditioners and air - to - air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
ISO 16358-1 : 2013	Air - cooled air conditioners and air - to - air heat pumps - Testing and calculating methods for seasonal performance factors - Part 1 : Cooling seasonal performance factor	1 750 W ~ 43 500 W	N
ISO 16358-2 : 2013	Air - cooled air conditioners and air - to - air heat pumps - Testing and calculating methods for seasonal performance factors - Part 2 : Heating seasonal performance factor	1 750 W ~ 43 500 W	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
ISO 16358-3 : 2013	Air - cooled air conditioners and air - to - air heat pumps - Testing and calculating methods for seasonal performance factors - Part 3 : Annual performance factor	1 750 W ~ 43 500 W	N
NOM-021-ENER-SCFI : 2008	Energy efficiency and safety requirements to the user in room type air conditioners. Limits, test methods and labelling	1 750 W ~ 43 500 W	N
NOM-023-ENER : 2010	Energy efficiency for separated assemblies, free delivery and non - ducted air conditioners. Limits, test methods and labelling	1 750 W ~ 43 500 W	N
NOM-026-ENER : 2015	Energy efficiency in split - type (inverter) air conditioners with variable refrigerant flow, free download and without air ducts. Limits, test methods and labelling	1 750 W ~ 43 500 W	N
NTE INEN 2495 : 2012	Energy efficiency of non - ducted air conditioners. Requirements	1 750 W ~ 43 500 W	N
AS/NZS 3823.1.1 : 2012	Performance of electrical appliances - Air conditioners and heat pumps - Non - ducted airconditioners and heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
AS/NZS 3823.1.2 : 2012	Performance of electrical appliances - Air conditioners and heat pumps - Ducted air conditioners and air-to-air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
AS/NZS 3823.2 : 2013	Performance of electrical appliances - Air conditioners and heat pumps - Energy labelling and minimum energy performance standards (MEPS) requirements	1 750 W ~ 43 500 W	N
AS/NZS 3823.3 : 2002	Performance of electrical appliances - Air conditioners and heat pumps - Calculation of performance for minimum energy performance standard (MEPS) requirements	1 750 W ~ 43 500 W	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
JIS C 9612 : 2013	Room air conditioners	1 750 W ~ 43 500 W	N
ANSI/ASHRAE Standard 16 : 2016	Method of testing for rating room air conditioners, packaged terminal air conditioners, and packaged terminal heat pumps for cooling and heating capacity	1 750 W ~ 43 500 W	N
ANSI/ASHRAE Standard 37 : 2009	Methods of testing for rating electrically driven unitary air - conditioning and heat pump equipment	1 750 W ~ 43 500 W	N
ANSI/AHRI Standard 210/240 : 2008	Performance rating of unitary air - conditioning & air-source heat pump equipment	1 750 W ~ 43 500 W	N
SASO 2663 : 2014	Energy labelling and minimum energy performance requirements for air - conditioners	1 750 W ~ 43 500 W	N
SASO 2681 : 2007	Non - ducted air conditioners and heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
SASO 2682 : 2007	Ducted air - conditioners and air - to - air heat pumps - Testing and rating for performance	1 750 W ~ 43 500 W	N
SASO 2763 : 2008	Safety and performance requirements for window air - conditioners and their method of test	1 750 W ~ 43 500 W	N
SANS 54511-3 : 2016	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 3 : Test methods	1 750 W ~ 43 500 W	N
EN 14511-3 : 2013	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 3 : Test methods	1 750 W ~ 43 500 W	N
EN 14825 : 2016	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Testing and rating at part load conditions and calculation of seasonal performance	1 750 W ~ 43 500 W	N

No. KT005

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03 Electric Test

03.004 Cables, Wires and Equipment for use electrical-line

규격번호	규 격 명	시험범위	Field testing
IEC 62133-1 : 2017	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 180 V, 200 A or less	N
IEC 62133-2 : 2017	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2 : Lithium systems	DC 180 V, 200 A or less	N
IEC 62619 : 2017	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 1 200 V, 400 A or less	N
IEC 62620 : 2014	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Secondary lithium cells and batteries for use in industrial applications	DC 1 200 V, 400 A or less	N
KS C IEC 62133 : 2013	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 (Exception) 8.3.5 Crush test, 8.3.9, Forced internal short	DC 50 V, 50 A or less	N

No. KT005

03.004 Cables, Wires and Equipment for use electrical-line

규격번호	규 격 명	시험범위	Field testing
KS C IEC 62619 : 2017	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 1 200 V, 400 A or less	N
KS C IEC 62620 : 2015	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Secondary lithium cells and batteries for use in industrial applications	DC 1 200 V, 400 A or less	N
SPS-KBIA-10104-01-1998 : 2015	Secondary Lithium - Ion Cell and Battery System - Battery Energy Storage System - Part 1 : Safety test	DC 1 200 V, 400 A or less	N
SPS-KBIA-10104-02-1999 : 2015	Secondary Lithium - ion Cell and Battery System - Battery Energy Storage System - Part 2 : Performance test	DC 1 200 V, 400 A or less	N
K 10024 : 2012	Safety requirements of Hazardous substance for Sealed secondary batteries	12 V	N
KC 62133 : 2015	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 (Exception) 8.3.5 Crush test, 8.3.9 Forced internal short	DC 50 V, 50 A or less, 500 Wh under	N
KC 62619 : 2019	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 1 500 V, 400 A or less	N
KC 62133 : 2019	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application	DC 180 V, 200 A or less	N

No. KT005

03.004 Cables, Wires and Equipment for use electrical-line

규격번호	규 격 명	시험범위	Field testing
KS C IEC 62133 - 1 : 2018	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application - Part 1 : Nickel systems	DC 180 V, 200 A or less	N
KS C IEC 62133 - 2 : 2018	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cell, and for batteries made from them, for use in portable application - Part 2 : Lithium systems	DC 180 V, 200 A or less	N
Safety Confirmation Safety Standards Annex 6 (Ministry of Trade, Industry and Energy Notification 2017-16)	Toy Chapter 2 Mechanical•Physical Status Supplement A (Standard) - Electric Toys A.3 Secondary Cells and Batteries Safety Requirements A.4 Testing method of toys included secondary Cells or Battery	DC 180 V, 200 A or less	N

No. KT005

03.004 Cables, Wires and Equipment for use electrical-line

규격번호	규 격 명	시험범위	Field testing
Safety Confirmation Safety Standards Annex 32 (Ministry of Trade, Industry and Energy Notification 2017-20)	Skate board Chapter 1. Skate board 6. Safety requirements 6.2 Performance 6.2.2.18 Battery short-circuit test 6.2.2.19 Battery over-charge test 6.2.2.20 Battery impact test 6.2.2.21 Battery vibration test 6.2.2.22 Battery shock test 7. Test method 7.22 Battery short-circuit test 7.23 Battery over-charge test 7.24 Battery impact test 7.25 Battery vibration test 7.26 Battery shock test Chapter 2. Electric kick board 5. Safety requirements 5.3 Performance 5.3.20 Battery short-circuit test 5.3.21 Battery over-charge test 5.3.22 Battery impact test 5.3.23 Battery vibration test 5.3.24 Battery shock test 6. Test method 6.18 Battery short-circuit test 6.19 Battery over-charge test 6.20 Battery impact test 6.21 Battery vibration test 6.22 Battery shock test Chapter 3. Electric 2 wheels board 5.3 Performance 5.3.20 Battery short-circuit test 5.3.21 Battery over-charge test 5.3.22 Battery impact test 5.3.23 Battery vibration test 5.3.24 Battery shock test	DC 180 V, 200 A or less	N

No. KT005

03.004 Cables, Wires and Equipment for use electrical-line

규격번호	규 격 명	시험범위	Field testing
Safety Confirmation Safety Standards Annex 32 (Ministry of Trade, Industry and Energy Notification 2017-20)	Skate board(continue) 6. Test method 6.18 Battery short-circuit test 6.19 Battery over-charge test 6.20 Battery impact test 6.21 Battery vibration test 6.22 Battery shock test Chapter 4. Type of electric board 5.3 Performance 5.3.20 Battery short-circuit test 5.3.21 Battery over-charge test 5.3.22 Battery impact test 5.3.23 Battery vibration test 5.3.24 Battery shock test 6. Test method 6.18 Battery short-circuit test 6.19 Battery over-charge test 6.20 Battery impact test 6.21 Battery vibration test 6.22 Battery shock test	DC 180 V, 200 A or less	N
SPS - C KBIA - 10104 - 03 - 7312 : 2018	Secondary lithium-ion battery system for battery energy storage systems - performance and safety requirements	DC 1 500 V, 400 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
National ratio research agency notice No. 2019-5 (2019.03.11)	Evaluate the suitability of broadcasting and communication equipment Notice	electromagnetic waves suitability registration	N
CISPR 11 Ed. 6.1 : 2015 / AMD1 : 2016	Industrial, scientific and medical equipment – Radio – frequency disturbance characteristics – Limits and methods of measurement	CE : (0.15 ~ 30) MHz RE : (0.03 ~ 18) GHz	N
CISPR 14 – 1 Ed. 6.0 : 2016	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1 : Emission	RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz	N
CISPR 14 – 2 Ed. 2.0 : 2015	Electromagnetic Compatibility – Requirements for Household Appliances, Electric Tools and Similar Apparatus – Part 2 : Immunity – Product Family Standard	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N
EN 55011 : 2016 / A1 : 2017	Industrial, scientific and medical equipment. Radio – frequency disturbance characteristics. Limits and methods of measurement	CE : (0.15 ~ 30) MHz, RE : (0.03 ~ 18) GHz	N
EN 55014 – 1 : 2017	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Emission	RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz	N
EN 55014 – 2 : 2015	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Immunity. Product family standard	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N
EN 61000 – 3 – 2 Ed.4.0 : 2014	Electromagnetic compatibility (EMC) – Part 3 – 2 : Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	input current ≤ 16 A per phase	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
EN 61000 - 3 - 3 : 2013	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	input current ≤ 16 A per phase	N
EN 61000 - 3 - 11 : 2000	Electromagnetic compatibility (EMC) - Part 3 - 11 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	input current ≤ 75 A	N
EN 61000 - 3 - 12 : 2001	Electromagnetic compatibility (EMC) - Part 3 - 12 : Limits - Limits for harmonic currents produced by equipment connected to public low - voltage systems with input current >16 A and <= 75 A per phase	input current > 16 A and <= 75 A per phase	N
EN 61000 - 4 - 11 : 2004 / A1 : 2017	Electromagnetic compatibility (EMC). Testing and measurement techniques. Voltage dips, short interruptions and voltage variations immunity tests	DIP : 16 A or less	N
EN 61000 - 4 - 2 : 2009	Electromagnetic compatibility (EMC). Testing and measurement techniques. Electrostatic discharge immunity test	ESD : ±(2 ~ 8) kV	N
EN 61000 - 4 - 3 : 2006 + A2 : 2010	Electromagnetic compatibility (EMC). Testing and measurement techniques. Radiated, radio - frequency, electromagnetic field immunity test	RS : (0.08 ~ 6) GHz, (1 ~ 10) V/m	N
EN 61000 - 4 - 4 : Ed 3.0 2012	Electromagnetic compatibility (EMC). Testing and measurement techniques. Electrical fast transient / burst immunity test	EFT : ±(0.25 ~ 4) kV	N
EN 61000 - 4 - 5 : Ed 3.0 2014	Electromagnetic compatibility (EMC). Testing and measurement techniques. Surge immunity test	Surge : ±(0.5 ~ 5) kV	N
EN 61000 - 4 - 6 : Ed 4.0 2014	Electromagnetic compatibility (EMC). Testing and measurement techniques. Immunity to conducted disturbances, induced by radio - frequency fields	CS : (0.15 ~ 80) MHz, (1 ~ 10) V/m	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
EN 61000 - 4 - 8 : 2010	Electromagnetic compatibility (EMC). Testing and measurement techniques. Power frequency magnetic field immunity test	PFM : (1 ~ 30) A/m, 50 Hz / 60 Hz	N
EN 61000 - 6 - 1 : 2007	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
EN 61000 - 6 - 2 : 2005	Electromagnetic compatibility (EMC). Generic standards. Immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N
EN 61000 - 6 - 3 : 2007 / A1 : 2011 / AC : 2012	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N
EN 61000 - 6 - 4 : 2007 / A1 : 2011	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
IEC 61000 - 3 - 2 : 2018	Electromagnetic compatibility (EMC) - Part 3 - 2 : Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	input current ≤ 16 A per phase	N
IEC 61000 - 3 - 3 : 2013	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	input current ≤ 16 A per phase	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
IEC 61000 - 3 - 11 : 2017	Electromagnetic compatibility (EMC) - Part 3 - 11 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	input current ≤ 75 A	N
IEC 61000 - 3 - 12 : 2001	Electromagnetic compatibility (EMC) - Part 3 - 12 : Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and <= 75 A per phase	input current > 16 A and <= 75 A per phase	N
IEC 61000 - 4 - 11 Ed.2.1 : 2004 / Amd1 : 2017	Electromagnetic compatibility (EMC) - Part 4 - 11 : Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	DIP : 16 A or less	N
IEC 61000 - 4 - 2 : Ed 2.0 : 2008	Electromagnetic compatibility (EMC) - Part 4 - 2 : Testing and measurement techniques - Electrostatic discharge immunity test	ESD : ±(2 ~ 8) kV	N
IEC 61000 - 4 - 3 : Ed 3.2 : 2006 / Amd2 : 2010	Electromagnetic compatibility (EMC) - Part 4 - 3 : Testing and measurement techniques - Radiated, radio - frequency, electromagnetic field immunity test	RS : (0.08 ~ 6) GHz, (1 ~ 10) V/m	N
IEC 61000 - 4 - 4 : Ed 3.0 : 2012	Electromagnetic compatibility (EMC) - Part 4 - 4 : Testing and measurement techniques - Electrical fast transient / burst immunity test	EFT : ±(0.25 ~ 4) kV	N
IEC 61000 - 4 - 5 : Ed 3.0 : 2014	Electromagnetic compatibility (EMC) - Part 4 - 5 : Testing and measurement techniques - Surge immunity test	Surge : ±(0.5 ~ 5) kV	N
IEC 61000 - 4 - 6 Ed 4.0 : 2013	Electromagnetic compatibility (EMC) - Part 4 - 6 : Testing and measurement techniques - Immunity to conducted disturbances, induced by radio - frequency fields	CS : (0.15 ~ 80) MHz, (1 ~ 10) V/m	N
IEC 61000 - 4 - 8 : 2009	Electromagnetic compatibility (EMC) - Part 4 - 8 : Testing and measurement techniques - Power frequency magnetic field immunity test	PFM : (1 ~ 30) A/m, 50 Hz / 60 Hz	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
IEC 61000 - 6 - 1 Ed.3 : 2016	Electromagnetic compatibility (EMC) - Part 6 - 1 : Generic standards - Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
IEC 61000 - 6 - 2 Ed.3 : 2016	Electromagnetic compatibility (EMC) - Part 6 - 2 : Generic standards - Immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N
IEC 61000 - 6 - 3 Ed2.1 : 2006 / Amd : 2010	Electromagnetic compatibility (EMC) - Part 6 - 3 : Generic standards - Emission standard for residential, commercial and light - industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N
IEC 61000 - 6 - 4 Ed.2.1 : 2006 / Amd1 : 2010	Electromagnetic compatibility (EMC) - Part 6 - 4 : Generic standards - Emission standard for industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
IEC 62040 - 2 Ed3.0 : 2016	Uninterruptible power systems (UPS) - Part 2 : Electromagnetic compatibility (EMC) requirements	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(1 ~ 2) kV Surge : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m	N
KN 11 : 2015	KN11 Test methods of EMC for industrial, scientiic medical equipment	CE : (0.15 ~ 30) MHz, RE : (0.03 ~ 18) GHz	N
KN 14 - 1 : 2014	KN 14 - 1 Test method of radio disturbance for household appliances, electric tools similar apparatus	RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
KN 14 - 2 : 2017	KN 14 - 2 Test method of immunity for household appliances, electric tools similar apparatus	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N
KN 61000 - 4 - 11 : 2008	KN 61000 - 4 - 11 Test method of voltage dips short interruptions immunity	DIP: 16 A or less	N
KN 61000 - 4 - 2 : 2013	KN 61000 - 4 - 2 Test method of electrostatic discharge immunity	ESD : ±(2 ~ 8) kV	N
KN 61000 - 4 - 3 : 2011	KN 61000 - 4 - 3 Test method of radiated radio - frequency, electromagnetic field immunity	RS : (0.08 ~ 6) GHz, (1 ~ 10) V/m	N
KN 61000 - 4 - 4 : 2011	KN 61000 - 4 - 4 Test method of electrical fast transient/burst immunity	EFT : ±(0.25 ~ 4) kV	N
KN 61000 - 4 - 5 : 2008	KN 61000 - 4 - 5 Test method of surge immunity	Surge: ±(0.5 ~ 5) kV	N
KN 61000 - 4 - 6 : 2013	KN 61000 - 4 - 6 Test method of Immunity to conducted disturbances, induced by radio - frequency fields	CS : (0.15 ~ 80) MHz, (1 ~ 10) V/m	N
KN 61000 - 4 - 8 : 2013	KN 61000 - 4 - 8 Test method of power frequency magnetic field immunity	PFM : (1 ~ 30) A/m, 50 Hz / 60 Hz	N
KN 61000 - 6 - 1 : 2012	KN 61000 - 6 - 1 Test method of immunity for residential, commercial light-industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
KN 61000 - 6 - 2 : 2012	KN 61000 - 6 - 2 Test method of immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
KN 61000 - 6 - 3 : 2012	KN 61000 - 6 - 3 Test Methods of radio disturbance for residential, commercial light - industrial environment	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N
KN 61000 - 6 - 4 : 2012	KN 61000 - 6 - 4 Test Methods of radio disturbance for industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
KN 62040 - 2 : 2012	KN 62040 - 2 Test Methods of radio disturbance of EMC for Uninterruptible Power System(UPS)	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(1 ~ 2) kV Surge : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m	N
KN 12015 : 2014	KN 12015 Test method of radio disturbance for elevator	RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N
KN 12016 : 2014	KN 12016 Test method of Protection for elevator	ESD : ±(4 ~ 15) kV RS : (80 ~ 2 675) MHz EFT : ±(0.5 ~ 4) kV Surge : ±(1 ~ 2.5) kV CS : (0.15 ~ 80) MHz DIP : 16 A or less	N
KS B 6945 : 2015	Electromagnetic compatibility - Product family standard for lifts, escalators and passenger conveyors - Immunity	ESD : ±(4 ~ 15) kV RS : (80 ~ 2 675) MHz EFT : ±(0.5 ~ 4) kV Surge : ±(1 ~ 2.5) kV CS : (0.15 ~ 80) MHz DIP : 16 A or less	N
KS B 6955 : 2015	Electromagnetic compatibility - Product family standard for lifts, escalators and passenger conveyors - Emission	RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
KS C 9040 - 2 : 2017	Uninterruptible power systems(UPS) - Part 2 : Electromagnetic compatibility(EMC) requirements	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz ESD : ±(4 ~ 8) kV RS : (0.08 ~ 1) GHz EFT : ±(1 ~ 2) kV Surge : ±(1 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m	N
KS C 9610 - 3 - 2 : 2017	Electromagnetic compatibility(EMC) - Part 3 - 2 : Limits - Limits for harmonic current emissions(equipment input current ≤ 16 A per phase)	input current ≤ 16 A per phase	N
KS C 9610 - 3 - 3 : 2017	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	input current ≤ 16 A per phase	N
KS C 9610 - 3 - 11 : 2017	Electromagnetic compatibility(EMC) - Part 3 - 11 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low - voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	input current ≤ 75 A	N
KS C 9610 - 3 - 12 : 2017	Electromagnetic compatibility(EMC) - Part 3 - 12 : Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase	input current > 16 A and ≤ 75 A per phase	N
KS C 9610 - 4 - 11 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 11 : Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	DIP : 16 A or less	N
KS C 9610 - 4 - 2 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 2 : Testing and measurement techniques - Electrostatic discharge immunity test	ESD : ±(2 ~ 8) kV	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
KS C 9610 - 4 - 3 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 3 : Testing and measurement techniques - Radiated, radio - frequency, electromagnetic field immunity test	RS : (0.08 ~ 6) GHz, (1 ~ 10) V/m	N
KS C 9610 - 4 - 4 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 4 : Testing and measurement techniques - Electrical fast transient/burst immunity test	EFT : ±(0.25 ~ 4) kV	N
KS C 9610 - 4 - 5 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 5 : Testing and measurement techniques - Surge immunity test	Surge ±(0.5 ~ 5) kV	N
KS C 9610 - 4 - 6 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 6 : Testing and measurement techniques - Immunity to conducted disturbances, induced by radio - frequency fields	CS : (0.15 ~ 80) MHz, (1 ~ 10) V/m	N
KS C 9610 - 4 - 8 : 2017	Electromagnetic compatibility(EMC) - Part 4 - 8 : Testing and measurement techniques - Power frequency magnetic field immunity test	PFM : (1 ~ 30) A/m, 50 Hz / 60 Hz	N
KS C 9610 - 6 - 1 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 1 : Generic standards - Immunity for residential, commercial and light - industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(0.5 ~ 1) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 3) A/m V-DIP : 16 A or less	N
KS C 9610 - 6 - 2 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 2 : Generic standards - Immunity for industrial environments	ESD : ±(4 ~ 8) kV RS : (0.08 ~ 6) GHz EFT : ±(1 ~ 2) kV Surge : ±(0.5 ~ 2) kV CS : (0.15 ~ 80) MHz PFM : (0 ~ 30) A/m V-DIP : 16 A or less	N
KS C 9610 - 6 - 3 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 3 : Generic standards - Emission standard for residential, commercial and lightindustrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
KS C 9610 - 6 - 4 : 2017	Electromagnetic compatibility(EMC) - Part 6 - 4 : Generic standards - Emission standard for industrial environments	Frequency : CE : (0.15 ~ 30) MHz RE : (0.03 ~ 6) GHz	N
KS C 9811 : 2017	Industrial, scientific and medical equipment(ISM) - Radio - frequency disturbance characteristics - Limits and methods of measurement	CE : (0.15 ~ 30) MHz, RE : (0.03 ~ 18) GHz	N
KS C 9814 - 1 : 2017	Electromagnetic compatibility(EMC) - Requirements for household appliances, electric tools and similar apparatus - Part 1 : Emission	RP : (30 ~ 300) MHz DISCONTINUOUS DISTURBANCE : (0.15 ~ 30) MHz RE : (0.03 ~ 1) GHz CE : (0.15 ~ 30) MHz	N
KS C 9814 - 2 : 2017	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2 : Immunity - Product family standard	ESD : ±(4 ~ 8) kV RS: (0.08 ~ 1) GHz EFT : ±(0.5 ~ 1) kV SURGE : ±(1 ~ 2) kV CS : (0.15 ~ 230) MHz V-DIP : 16 A or less	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명		시험범위	Field testing
MIL - STD - 461E : 1999	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	5.4 CE101, conducted emissions, power leads, 30 Hz ~ 10 kHz	30 Hz ~ 10 kHz	N
		5.5 CE102, conducted emissions, power leads, 10 kHz ~ 10 MHz	10 kHz ~ 10 MHz	N
		5.6 CE106, conducted emissions, antenna terminal, 10 kHz ~ 40 GHz	10 kHz ~ 40 GHz	N
		5.7 CS101, conducted susceptibility, power leads, 30 Hz ~ 150 kHz	30 Hz ~ 150 kHz	N
		5.8 CS103, conducted susceptibility, Antenna port, intermodulation, 15 kHz ~ 10 GHz	15 kHz ~ 10 GHz	N
		5.9 CS104, conducted susceptibility, Antenna port, Rejection of undesired signals 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N
		5.10 CS105, conducted susceptibility, Antenna port, cross modulation, 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N
		5.11 CS109, conducted susceptibility, structure current, 60 Hz ~ 100 kHz	60 Hz ~ 100 kHz	N
		5.12 CS114, conducted susceptibility, bulk cable injection, 10 kHz ~ 200 MHz	10 kHz ~ 200 MHz	N
		5.13 CS115, Conducted susceptibility bulk cable injection, impulse excitation	5 A	N
		5.14 CS116, conducted susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz ~ 100 MHz	10 A	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명		시험범위	Field testing
MIL - STD - 461E : 1999	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT (continue)		-	-
	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	5.15 RE101, radiated emissions, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.16 RE102, radiated emissions, electric field, 10 kHz ~ 18 GHz	10 kHz ~ 18 GHz	N
		5.18 RS101, radiated susceptibility, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.19 RS103, radiated susceptibility, electric field, 2 MHz ~ 40 GHz	2 MHz ~ 18 GHz (Exception : 2 MHz ~ 100 MHz, 200 V/m)	N
MIL - STD - 461F : 1999	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	5.4 CE101, conducted emissions, power leads, 30 Hz ~ 10 kHz	30 Hz ~ 10 kHz	N
		5.5 CE102, conducted emissions, power leads, 10 kHz ~ 10 MHz	10 kHz ~ 10 MHz	N
		5.6 CE106, conducted emissions, antenna terminal, 10 kHz ~ 40 GHz	10 kHz ~ 40 GHz	N
		5.7 CS101, conducted susceptibility, power leads, 30 Hz ~ 150 kHz	30 Hz ~ 150 kHz	N
		5.8 CS103, conducted susceptibility, Antenna port, intermodulation, 15 kHz ~ 10 GHz	15 kHz ~ 10 GHz	N
		5.9 CS104, conducted susceptibility, Antenna port, Rejection of undesired signals 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N
		5.10 CS105, conducted susceptibility, Antenna port, cross modulation 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명		시험범위	Field testing
MIL - STD - 461F : 1999	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT (continue)		-	-
	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	5.11 CS106, conducted susceptibility, Transients power leads	400 V	N
		5.12 CS109, conducted susceptibility, structure current, 60 Hz ~ 100 kHz	60 Hz ~ 100 kHz	N
		5.13 CS114, conducted susceptibility, bulk cable injection, 10 kHz ~ 200 MHz	4 kHz ~ 200 MHz	N
		5.14 CS115, Conducted susceptibility bulk cable injection, impulse excitation	5 A	N
		5.15 CS116, conducted susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz ~ 100 MHz	10 A	N
		5.16 RE101, radiated emissions, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.17 RE102, radiated emissions, electric field, 10 kHz ~ 18 GHz	10 kHz ~ 18 GHz	N
		5.19 RS101, radiated susceptibility, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.20 RS103, radiated susceptibility, electric field, 2 MHz ~ 40 GHz (Exception : 2 MHz ~ 100 MHz, 200 V/m)	2 MHz ~ 18 GHz (Exception : 2 MHz ~ 100 MHz, 200 V/m)	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명		시험범위	Field testing
MIL - STD - 461G : 2015	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	5.4 CE101, conducted emissions, power leads, 30 Hz ~ 10 kHz	30 Hz ~ 10 kHz	N
		5.5 CE102, conducted emissions, power leads, 10 kHz ~ 10 MHz	10 kHz ~ 10 MHz	N
		5.6 CE106, conducted emissions, antenna terminal, 10 kHz ~ 40 GHz	10 kHz ~ 40 GHz	N
		5.7 CS101, conducted susceptibility, power leads, 30 Hz ~ 150 kHz	30 Hz ~ 150 kHz	N
		5.8 CS103, conducted susceptibility, Antenna port, intermodulation, 15 kHz ~ 10 GHz	15 kHz ~ 10 GHz	N
		5.9 CS104, conducted susceptibility, Antenna port, Rejection of undesired signals 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N
		5.10 CS105, conducted susceptibility, Antenna port, cross modulation 30 Hz ~ 20 GHz	30 Hz ~ 20 GHz	N
		5.11 CS109, conducted susceptibility, structure current, 60 Hz ~ 100 kHz	60 Hz ~ 100 kHz	N
		5.12 CS114, conducted susceptibility, bulk cable injection, 10 kHz ~ 200 MHz	10 kHz ~ 200 MHz	N
		5.13 CS115, Conducted susceptibility bulk cable injection, impulse excitation	5 A	N
		5.14 CS116, conducted susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz ~ 100 MHz	10 A	N
		5.16 CS118, personnel borne electrostatic discharge	±30 kV	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명		시험범위	Field testing
MIL - STD - 461G : 2015	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT(continue)		-	-
	DEPARTMENT OF DEFENSE INTERFACE STANDARD, REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFACE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT	[1]5.17 RE101, radiated emissions, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.18 RE102, radiated emissions, electric field, 10 kHz ~ 18 GHz	10 kHz ~ 18 GHz	N
		5.20 RS101, radiated susceptibility, magnetic field, 30 Hz ~ 100 kHz	30 Hz ~ 100 kHz	N
		5.21 RS103, radiated susceptibility, electric field, 2 MHz ~ 40 GHz (Exception : 2 MHz ~ 100 MHz, 200 V/m)	2 MHz ~ 18 GHz (Exception : 2 MHz ~ 100 MHz, 200 V/m)	N
CISPR 25 : 2016	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers		RE : 150 kHz ~ 18 GHz CE : 150 kHz ~ 108 MHz	N
ISO 10605 : 2008	Road vehicles - Test methods for electrical disturbances from electrostatic discharge		Level : max. ±30 kV	N
ISO 11452 - 2 : 2004	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2 : Absorber - lined shielded enclosure		Frequency : 80 MHz ~ 3 GHz Lever : max. 100 V/m	N
ISO 11452 - 4 : 2011	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 4 : Harness excitation methods		BCI : 1 MHz ~ 400 MHz Level : 400 mA	N
ISO 11452 - 8 : 2015	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 8 : Immunity to magnetic fields		Frequency : DC to 15 kHz Level : max. 1 000 A/m	N
ISO 11452 - 9 : 2015	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 9 : Portable transmitters		Max power 20 W	N

No. KT005

03.011 Electromagnetic Compatibility

규격번호	규 격 명	시험범위	Field testing
ISO 16750 - 2 : 2012	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 2 : Electrical loads	12 V and 24 V system	N
ISO 7637 - 2 : 2011	Road vehicles - Electrical disturbances from conduction and coupling - Part 2 : Electrical transient conduction along supply lines only	12 V and 24 V system	N
ISO 7637 - 3 : 2016	Road vehicles - Electrical disturbances from conduction and coupling - Part 3 : Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	Fast a : -80 V Fast b : +80 V	N
KS R ISO 11452 - 2 : 2013	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2 : Absorber - lined shielded enclosure	Frequency : 80 MHz ~ 3 GHz Level : max. 100 V/m	N
KS R ISO 11452 - 4 : 2013	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 4 : Harness excitation methods	BCI : 1 MHz ~ 400 MHz Level : 400 mA	N
KS R ISO 11452 - 8 : 2013	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 8 : Immunity to magnetic fields	Frequency : DC to 15 kHz Level : max. 1 000 A/m	N
KS R ISO 11452 - 9 : 2016	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 9 : Portable transmitters	Max power 20 W	N
KS R ISO 7637 - 2 : 2015	Road vehicles - Electrical disturbances from conduction and coupling - Part 2 : Electrical transient conduction along supply lines only	12 V and 24 V system	N
KS R ISO 7637 - 3 : 2015	Road vehicles - Electrical disturbances from conduction and coupling - Part 3 : Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	Fast a : -80 V Fast b : +80 V	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
KS C 8564 : 2016	Small scale photovoltaic inverter (grid - tied type, stand - alone type)	rated power 10 kW or less	N
KS C 8565 : 2016	Medium and large size photovoltaic inverter(grid - tied type, stand - alone type)	rated power 10 kW ~ 250 kW	N
IEC 61727 Ed. 2.0b : 2004	Photovoltaic (PV) systems - Characteristics of the utility interface	rated power 250 kW or less input voltage 1 000 V or less	N
IEC 62109-1 Ed. 1.0b : 2010	Safety of power converters for use in photovoltaic power systems - Part 1 : General requirements	rated power 250 kW or less input voltage 1 000 V or less	N
IEC 62109-2 Ed. 1.0b : 2011	Safety of power converters for use in photovoltaic power systems - Part 2 : Particular requirements for inverters	rated power 250 kW or less input voltage 1 000 V or less	N
IEC 62116 Ed. 2.0b : 2014	Utility - interconnected photovoltaic inverters - Test procedure of islanding prevention measures	rated power 250 kW or less input voltage 1 000 V or less	N
KS C IEC 61727 : 2005	Photovoltaic (PV) systems - Characteristics of the utility interface	rated power 250 kW or less input voltage 1 000 V or less	N
KS C IEC 62109-1 : 2012	afety of power converters for use in photovoltaic power systems - Part 1 : General requirements	rated power 250 kW or less input voltage 1 000 V or less	N
KS C IEC 62109-2 : 2013	Safety of power converters for use in photovoltaic power systems - Part 2 : Particular requirements for inverters	rated power 250 kW or less input voltage 1 000 V or less	N
KS C IEC 62116 : 2015	Utility - interconnected photovoltaic inverters - Test procedure of islanding prevention measures	rated power 250 kW or less input voltage 1 000 V or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
KS C 8561 : 2016	Crystalline silicone photovoltaic(PV) module (performance)	max voltage 300 V or less max current 30 A or less	N
KS C 8563 : 2015	Photovoltaic(PV) module(safety qualification)	max voltage 300 V or less max current 30 A or less	N
KS C 8577 : 2016	Building integrated photovoltaics(BIPV) modules - The requirement of performance evaluation	max voltage 300 V or less max current 30 A or less	N
IEC 60904 - 1 Ed.2.0 b : 2006	Photovoltaic devices - Part 1 : Measurement of photovoltaic current - voltage characteristics	max voltage 200 V or less max current 24 A or less	N
IEC 61215 - 1 : 2016	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1 : Test requirements	max voltage 200 V or less max current 24 A or less	N
IEC 61215 - 1 - 1 : 2016	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1 - 1 : Special requirements for testing of crystalline silicon photovoltaic (PV) modules	max voltage 200 V or less max current 24 A or less	N
KS C IEC 61730-1 : 2014	Photovoltaic (PV) module safety qualification - Part 1 : Requirements for construction	max voltage 2 500 V or less max current 30 A or less	N
KS C IEC 61730-2 : 2014	Photovoltaic (PV) module safety qualification - Part 2 : Requirements for testing	max voltage 8 000 V or less max current 30 A or less	N
KS C 8562 : 2015	Thin film photovoltaic(PV) module(performance)	max voltage 300 V or less max current 30 A or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
IEC 61215-1-3 : 2016	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1 - 3 : Special requirements for testing of thin-film amorphous silicon based photovoltaic (PV) modules	max voltage 300 V or less max current 30 A or less	N
IEC 61215-1-4 : 2016	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1 - 4 : Special requirements for testing of thin-film Cu(In,GA)(S,Se)2 based photovoltaic (PV) modules	max voltage 300 V or less max current 30 A or less	N
Ministry of Trade,Industry and energy notice No. 2018-244 (2018.12.28)	Regulations for High Efficiency Energy Device - ESS	-	N
KS C 8560 : 2016	Photovoltaic microinverter(grid - tied type, stand - alone type)	rated power 1 kW or less (DC input voltage 150 V or less, DC output voltage 380 V or less)	N
KS C 8567 : 2017	Photovoltaic combiner box	DC input volatage 1 500 V or less	N
SPS-SGSF-025-4-1972 (SGSF)	Performance Requirements for Power Conversion Devices for Electrical Energy Storage Systems	-	N
KS C IEC 61683 : 2005	Photovoltaic systems - Power conditioners - Procedure for measuring efficiency	-	N
IEC 61683 : 1999	Photovoltaic systems - Power conditioners - Procedure for measuring efficiency	-	N
IEC 61215 - 2 : 2016	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 2 : Test procedures	max voltage 200 V or less max current 24 A or less	N
IEC 61730 - 1 : 2016	Photovoltaic (PV) module safety qualification - Part 1 : Requirements for construction	max voltage 2 500 V or less max current 30 A or less	N

No. KT005

03.013 Energy Efficiency

Test method	Standard designation	Test range	Field testing
IEC 61730 - 2 : 2016	Photovoltaic (PV) module safety qualification - Part 2 : Requirements for testing	max voltage 8 000 V or less max current 30 A or less	N
KS C IEC 60904 - 1 : 2009	Photovoltaic devices - Part 1 : Measurement of photovoltaic current - voltage characteristics	max voltage 200 V or less max current 24 A or less	N
KS C IEC 61215 : 2006	Terrestrial photovoltaic (PV) modules - Design qualification and type approval	max voltage 200 V or less max current 24 A or less	N

End.