

"APPROVED"

Deputy Chairman of the Board

"National center of accreditation" LLP

_____ Taizhanov K. N.

" _____ " _____ 2019

Appendix to the Certificate of accreditation

No. _____

dated " _____ " _____ 2019 on 8 pages

FIELD OF ACCREDITATION

electrotechnical laboratory of LLP "KITEK CONSTRUCTION"

Electrotechnical laboratory (ETL), Atyrau, SOUTH INDUSTRIAL ZONE, building 44

(name and actual address of the testing laboratory(center) and (or) its structural unit (s))

Product names (facility)	TN code FEA EAEU	Designation of normative legal acts, normative documents for products (facility)	Defined characteristics (indicators) of product (facility)	Designation of normative documents on test methods for determination of characteristics (indicators)
1	2	3	4	5
DC machines	8501 20 000 0 8501 32 000 0 8501 32 000 2 8501 32 000 9	GOST 183-74 GOST 12.2.007.1-75	Measurement of the insulation resistance of the windings relative to the machine body and between the windings, and the insulation resistance of the bearings.	GOST 11828-86 (p. 6) ST RK 2776-2015 (item 6.1, item 6.2)
			Insulation test for electrical strength relative to the machine body and between windings	GOST 11828-86 (p. 7) ST RK 2776-2015 (p. 6.3)
			Measurement of DC resistance of windings	GOST 11828-86 (p. 3) ST RK 2776-2015 (p. 6.4)

AC motors	8501 20 000 0	GOST 183-74 GOST 12.2.007.1-75	Measurement of insulation resistance of windings.	GOST 11828-86 (p. 6) ST RK 2776-2015 (p.7.1, p.7.2)
	8501 32 000 0		Insulation test for electrical strength	GOST 11828-86 (p. 7) ST RK 2776-2015 (item 7.3)
	8501 32 000 9		Measurement of DC resistance of windings	GOST 11828-86 (p. 3) GOST 7217-87 (p. 2) ST RK 2776-2015 (item 7.4)
	8501 51 000 1			
	8501 52 200 1			
	8501 52 300 0			
	8501 52 900 0			
	8501 52 900 9			
	8501 53 500 0			
	8501 53 810 0			
	8501 53 940 0			
	8501 53 990 0			
Power transformers, autotransformers and reactors	8504 21 000 0 8504 22 000 0 8504 22 100 0 8504 22 900 0 8504 34 000 0	GOST 11677-85 GOST 1516.1-76 GOST 32676-2014	Testing of electrical insulation strength	GOST 1516.2-97 (item 7.1-item 7.4 p. 8) GOST 1516.1-76 (item 1.7) GOST 1516.3-96 (p.5.4-p.5.6) ST RK 2776-2015 (p. 8.7)
			Measurement of the dielectric loss tangent and winding capacitance	GOST 3484.3-88 (item 4.2) ST RK 2776-2015 (p. 8.5)
			Measurement of winding insulation resistance and determination of absorption coefficient	GOST 3484.3-88 (item 4.1) ST RK 2776-2015 (p. 8.4)
			Measurement of DC resistance of windings	GOST 3484.1-88 (p.4.1-p.4.3) ST RK 2776-2015 (p. 8.8)
			Loss measurement, no-load current	GOST 3484.1-88 (item 6) ST RK 2776-2015 (p. 8.11, p.8.12)

			Measurement of transformation ratio and determination of winding connection group	GOST 3484.1 (p. 2, p. 3) ST RK 2776-2015 (p. 8.9, p. 8.10)
Measuring current transformers	8504 31 210 0 8504 31 290 0	GOST 7746-2015 GOST 12.3.019-80	Measurement of winding insulation resistance	GOST 7746-2015 (p. 6.3) ST RK 2776-2015 (p. 9.1)
			Measurement of the dielectric loss tangent and winding capacitance	GOST 7746-2015 (p. 6.3.6) ST RK 2776-2015 (p. 9.2, p. 9.3, p. 9.4)
			High Voltage Frequency Test	GOST 1516.1-76 (item 4.3) GOST 7746-2015 (p. 6.3, p. 9.2) GOST 1516.3-96 (p. 7.3, p. 7.4) ST RK 2776-2015 (p. 9.3)
			Removal of magnetization characteristics	GOST 7746-2015 (p. 9.8) ST RK 2776-2015 (p. 9.4)
Voltage measuring transformers	8504 31 210 0 8504 31 290 0 8504 31 290 9	GOST 1983-2015 GOST 12.3.019-80	Measurement of winding insulation resistance	GOST 1983-2015 (p. 9.3) ST RK 2776-2015 (p. 10.1.1)
			Insulation test for electrical strength	GOST 22756-77 (p.2.7) GOST 1516.2-97 (p. 7.4.2.2-7.4.2.4., p. 8) GOST 1516.1-76 (p.1.7.1-p.1.7.4) GOST 1516.3-96 (p.5.4-p.5.6) ST RK 2776-2015 (p. 10.1.2)
			Measurement of DC resistance of windings	GOST 3484.1-88 (p.4.1-p.4.3) ST RK 2776-2015 (p. 10.1.3, p.10.2.4)
			Measurement of current and no-load losses	GOST 3484.1-88 (item 6) GOST 1983-2015 (item 9.5) ST RK 2776-2015 (p. 10.2.5)

Vacuum, oil, air, gas-insulated switches, electromagnetic switches	8535 21 000 0 8535 29 000 0 8536 20 100 0 8536 20 900 0	GOST 687-78	Electrical insulation strength test	GOST 1516.3-96 (p. 8.3, p.8.4) GOST 1516.1-76 (item 5.3-item 5.6) GOST 1516.2-97 (item 7, item 8) ST RK 2776-2015 (p. 11.3,12.2,14.2,15.2.)
			Measurement of electrical resistance of the main circuit	GOST 8024-90 (p.2.6) ST RK 2776-2015 (p. 11.5,12.3,14.3,15.)
			Check of switch characteristics	GOST 687-78 (p.7.2.2.7) ST RK 2776-2015 (p. 11.6,12.6,14.6,15.)
Valve Arresters Surge Suppressors	8535 40 000 0 8535 90 000 0	GOST 16357-83	Insulation resistance measurement	GOST 16357-83(p. 6.2.14) ST RK 2776-2015 (p. 23.1)
			Conductivity Current Measurement (Leakage Current)	GOST 16357-83(p. 6.2.14) ST RK 2776-2015 (p. 23.3)
Busbars and connecting buses up to and above 1000 V	8535 90 000 0 8536 90 850 0 8544 42 900 9 8544 60 100 0	GOST 6815-79	Measurement of insulation resistance of suspension and support insulators	GOST 6815-79 (p.4.3) GOST 26093-84 (p.1.5) ST RK 2776-2015 (p. 19.1)
			Insulation test with high voltage of industrial frequency	GOST 6815-79 (p. 6.6) GOST 2933-83 (p.4.1) ST RK 2776-2015 (p. 19.2)
Fuses with voltage above 1000 V	8535 10 000 0	GOST 2213-79	Test of basic insulation of fuses with increased voltage of industrial frequency	GOST 1516.1-76 (item 6.2-item 6.3) GOST 1516.2-97 (item 7) GOST 1516.3-96 (item 9.2) ST RK 2776-2015 (p. 26. -p. 26.3)

Insulators up to and above 1000 V	8546 10 000 0 8546 20 000 0 8546 90 100 0 8546 90 900 0	GOST 13871-78 GOST 22229 -83	Insulation resistance measurement	ST RK 2776-2015 (p. 19.1. 32.6.1)
			Insulation test with high voltage of industrial frequency	GOST 1516.2 -97 (item 7) GOST 1516.1-76 (item 9.3- item 9.4) ST RK 2776-2015 (p. 19.2.)
Load break switches	8535 21 000 0 8535 29 000 0 8536 20 100 0 8536 20 900 0	GOST 17717-79	Insulation test with high voltage of industrial frequency	GOST 1516.1-76 (item 5.3 - item 5.6) GOST 1516.2-97 (item 7.) GOST 1516.3-96 (p. 8.3, p.8.4) ST RK 2776-2015 (p. 13.2)
			Measurement of the resistance of the current-carrying circuit of the contact system of the switch.	GOST 8024-90 (p. 2.6) ST RK 2776-2015 (p. 13.3)
Disconnectors, separators and short-circuit breakers	8535 30 100 0 8535 30 900 0	GOST 689-90	Insulation test with high voltage of industrial frequency	GOST 1516.1-76 (item 5.3- item 5.6) GOST 1516.2-97 (item 7) GOST 1516.3-96 (item 8.3- item 8.4) ST RK 2776-2015 (p. 16.2)
			Measurement of insulation resistance of leads and lugs made of organic materials	ST RK 2776-2015 (p. 16.1)
Rechargeable batteries	8507 20 200 0	GOST 26881-86	Battery insulation resistance measurement	ST RK 2776-2015 (p. 29.6)
			Battery capacity check	ST RK 2776-2015 (p. 29.1)
			Voltage measurement of each battery cell	ST RK 2776-2015 (p. 29.4)
Power cables up to 1000 V	8544 49 910 8544 49 950 0	GOST 433-73 GOST 7006-72	Insulation resistance measurement	GOST 3345-76(p. 3) ST RK 2776-2015 (p. 31.1)

	8544 49 990 0	GOST 16442-80	Testing insulation of cables with high rectified voltage	GOST 2990-78 (p.4.1) ST RK 2776-2015 (p. 31.2)
Power cables above 1000 V	8544 60 100 0 8544 60 900 1 8544 60 900 9 8544 70 000 0	GOST 7006-72 GOST 433-73 GOST 31996-2012 GOST 18410-73 ST RK IEC 60502-1-2012 ST RK IEC 60502-2-2012	Testing of extruded insulation cables	ST RK IEC 60502-1-2012 (item 19) ST RK IEC 60502-2-2012 (item 20)
			Testing insulation of cables with high rectified voltage	GOST 2990-78 (p. 4) ST RK 2776-2015 (p. 31)
Grounding devices	8535 90 000 0 8536 90 850 0	GOST 12.1 030-81	Verification of phase-zero impedance in installations up to 1000 V with low-grounded neutral	ST RK 2776-2015 (p. 30.8)
			Measurement of the resistance of grounding devices of power plants, substations and power lines	ST RK 2776-2015 (p. 30.4)
			Check of earthing connections with earthing elements, natural earthing connections with earthing device	ST RK 2776-2015 (p. 30.2)
Synchronous generators, compensators and collector exciters	8501 10 000 0 8501 10 100 0 8501 61 000 0 8501 62 000 0 8501 63 000 0 8501 64 000 0	GOST 10169-77	Measurement of winding insulation resistance and determination of absorption coefficient	GOST 11828-86 (p. 6) ST RK 2776-2015 (p. 5.3)
			Insulation test of the stator winding with high rectified voltage with leakage current measurement	GOST 11828-86 (p.7.8) ST RK 2776-2015 (p. 5.4)
			High Voltage Frequency Test	GOST 11828-86 (p. 7) ST RK 2776-2015 (p. 5.5)
			DC resistance measurement	GOST 11828-86 (p. 3) ST RK 2776-2015 (p. 5.6)

Devices, secondary circuits and wiring for voltage up to 1000 V	8536 10 100 0	GOST 12434-93	Insulation resistance measurement	GOST 2933-93 (p. 3) ST RK 2776-2015 (p. 28.1)
	8536 10 500 0		Tests with increased frequency voltage 50 Hz	GOST 2933-93 (p. 3) ST RK 2776-2015 (p. 28.2)
	8536 10 900 0			
	8536 20 100 0		Verification of maximum, minimum or independent automatic release devices	ST RK 2776-2015 (p. 28.3)
	8536 20 900 0			
	8536 30 100 0		Checking the operation of contactors and automatic machines at low voltage operating current	ST RK 2776-2015 (p. 28.4)
	8536 30 300 0			
	8536 30 900 0			
	8536 50 070 0			
	8536 50 800 0			
8536 61 100 0				
8536 61 900 0				
8536 69 900 0				
8536 90 010 0				
8536 90 100 0				
8536 90 850 0				
8538 10 000 0				
Insulating operational rods and portable earth rods.	8546 90 100 0	GOST 20494-2001	Insulation test for electrical strength	GOST 20494-2001(p. 5.13, p.5.14, p.8.4)
	8546 90 900 0			
	8547 20 000 0			
	8547 20 000 1			
	8547 20 000 9			
8547 90 000 0				
Dielectric footwear, dielectric gloves made of polymeric materials	6402 99 100 0	GOST 13385-78 GOST 12.4.307-2016	High voltage test Leakage current measurement	GOST 13385-78 (p.2.5, p.4.7) GOST 12.4.307-2016(clause 5.7)
	4015 19 000 0			
Hand tools for work under voltage up to 1000 V AC / 1500 V DC	8203 20 000 0	GOST 11516-94	High voltage test Leakage current measurement	GOST 11516-94 (p. 5.3)
	8205 20 000 0			
	8205 40 000 0			

Transformer oil	2710 19 930 0 2710 19 820 0 2710 19 840 0	GOST 982-80	Breakdown voltage	GOST 6581-75(item 4)
Voltage indicators up to and above 1000 V	9030 39 000 0	GOST 20493-2001	Display voltage check	GOST 20493-2001 (p. 5.8, p. 5.9)
			Insulation test for electrical strength	GOST 20493-2001 (p. 5.8, p. 5.9)
Switchgears for indoor and outdoor installation, complete transformer substations.	8535 21 000 0 8535 29 000 0 8535 90 000 0	GOST 14693-90 GOST 12.2.007.4-96	Conductor insulation test with increased voltage of industrial frequency	GOST 1516.1-76 (p.8.2-p. 8.4) GOST 1516.3-96 (item 11.2) GOST 14694-76 (p. 5) ST RK 2776-2015(p. 17.2)
Fiber optic cable	8544 70 000 0 9001 10 900 0	GOST 26599-85	Attenuation measurement	GOST 26814-86 (p. 1)

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