

Scope of the testing laboratory (center) accreditation

Testing center of "GK "Electroshield - TM Samara"

name of the testing laboratory (center)

443048, Samara, Samara region, Russia, Krasnaya Glinka settlement, Building of the "Electroshield" plant management

place of activity

No.	Guidelines for practices and methods of research (testing), measurements	Facility name	OKPD2 Code	EAEU Tariff number	Target parameter (indicator)	Range of definitions
1	2	3	4	5	6	7
1	GOST 20248 Clause 2	Packaged Transformer Substations (PTS)	27.11	8504000000	Rated current heating tests	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
2	GOST 20248 Clause 4	Packaged Transformer Substations (PTS)	27.11	8504000000	Correct execution of operational control, protection, automation and alarm circuits, measurement of electrical resistance of operational circuits	from 0.1 μΩ to 1 kΩ
3	GOST 20248 Clause 5	Packaged Transformer Substations (PTS)	27.11	8504000000	Testing of switching equipment and drives of the main circuits for tripping and closing, measurement of force	from 0 to 100 kN
4	GOST 20248 Clause 6	Packaged Transformer Substations (PTS)	27.11	8504000000	Efforts during operating, when the action of locks is checked	from 0 to 100 kN
5	GOST 20248 Clause 7	Packaged Transformer Substations (PTS)	27.11	8504000000	Geometric parameters	from 0 to 10000 mm
					The pressure force parameters	from 0 to 100 kgf
6	GOST 20248 Clause 8	Packaged Transformer Substations (PTS)	27.11	8504000000	IP protection parameters	from 00 to 44
					Cold ambient temperature parameters	from minus 70 to 0 °C
					High ambient temperature parameters	from 0 to plus 150 °C
					Humidity parameters	from 10 to 98%

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7	GOST 20248 Clause 10	Packaged Transformer Substations (PTS)	27.11	8504000000	Testing the strength of insulation of the main circuits on the HV side with a short-term AC voltage	from 0 to 500 kV
					Testing the strength of insulation of the main circuits on the HV side with lightning impulse voltage	from 0 to 1600 kV
					Testing the strength of insulation of the main circuits on the LV side with a short-term AC voltage	from 0.1 to 5 kV
8	GOST 20248 Clause 12	Packaged Transformer Substations (PTS)	27.11	8504000000	Contact pressure force parameters	from 0 to 100 kgf
					Geometric parameters	from 0 to 10000 mm
9	GOST 20248 Clause 13	Packaged Transformer Substations (PTS)	27.11	8504000000	Geometric parameters during the control assembly	from 0 to 10000 mm
					Contact pressure force parameters	from 0 to 100 kgf
10	GOST 8024 Clause 2	Packaged Transformer Substations (PTS)	27.11	8504000000	Electric heating test	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
		KRU type switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	853530900 8535309009		
		Current transformers	27.11.4	8543129000		
Power transformers	27.11.4	8504210000				

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11	GOST 1516.2 Clause 5	Packaged Transformer Substations (PTS)	27.11	8504000000	Insulation strength test by lightning impulse voltage	from 0 to 1600 kV
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	8535309000 8535309009		
		Current transformers	27.11.4	854312900		
		Voltage transformers	27.11.4	850431210		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
12	GOST 1516.2 Clause 7	Packaged Transformer Substations (PTS)	27.11	8504000000	Insulation strength tests by short duration AC voltage in a dry state and in the rain	from 0 to 500 kV
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	8535309000 8535309009		

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		Current transformers	27.11.4	854312900				
13	GOST 16962.1 Clause 2	Packaged Transformer Substations (PTS)	27	8504000000	Cold ambient temperature parameters	from minus 70 to 0 °C		
					High ambient temperature parameters	from 0 to plus 150 °C		
					Humidity parameters	from 10 to 98%		
					Tests under ice formation	from 0 to 10000 mm		
				Current transformers	27.11.4	854312900		
				Voltage transformers	27.11.4	850431210		
				Power transformers	27.11.4	8504210000 8504220000 8504310000		
				KRU type switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000				
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000				
		HV load breakers	27.12.10.110	8535210000 8535290000				

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		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	8535309000 8535309009		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
14	GOST 14254 Clause 12	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection	from 0X to 4X
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers	27.12.10.110	8535210000 8535290000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	8535309000 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		

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		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
15	GOST 14254 Clause 13	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection	from 0X to 4X
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers	27.12.10.110	8535210000 8535290000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches	27.12.10.120	853530900 8535309009		

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		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
16	GOST 14254 Clause 14	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection	from X0 to X4
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers	27.12.10.110	8535210000 8535290000		
		Power HV circuit breakers	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing	27.12.10.120	853530900 8535309009		

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		devices, isolating switches and short-circuit switches				
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
17	GOST 14694 Clause 2	KRU type switchgears. KSO type switchgears	27.12	8537200000	Measurement of contact pressure	from 0 to 100 kgf
18	GOST 14694-76 Clause 3	KRU type switchgears. KSO type switchgears	27.12	8537200000	Electric heating test	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
19	GOST 14694-76 Clause 4	KRU type switchgears. KSO type switchgears	27.12	8537200000	Geometric parameters	from 0 to 10000 mm
					Force parameters when switching devices are operated	from 0 to 100 kN
					Correct execution of operational control, protection, automation and alarm circuits, measurement of electrical resistance of operational circuits	from 0.1 $\mu\Omega$ to 1 k Ω

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					Testing of switching equipment and drives of the main circuits for tripping and closing, measurement of force	
					Efforts during operating, when the action of locks is checked	
20	GOST 14694-76 Clause 5	KRU type switchgears. KSO type switchgears	27.12	8537200000	Testing the strength of insulation of the main circuits with a short-term AC voltage	from 0 to 500 kV
					Testing the strength of insulation of the main circuits with lightning impulse voltage	from 0 to 1600 kV
21	GOST 14694-76 Clause 6	KRU type switchgears. KSO type switchgears	27.12	8537200000	Cold ambient temperature parameters	from minus 70 to 0 °C
					High ambient temperature parameters	from 0 to plus 150 °C
					Humidity parameters	from 10 to 98%
					IP protection parameters	from 00 to 44
22	GOST 14694-76 Clause 8	KRU type switchgears. KSO type switchgears	27.12	8537200000	Force parameters during operation, during testing of transportation stability	from 0 to 100 kN
					Geometric parameters	from 0 to 10000 mm
23	GOST 14694-76 Clause 10	KRU type switchgears. KSO type switchgears	27.12	8537200000	Geometric parameters during the control assembly	from 0 to 10000 mm
					Force parameters during operation, during control assembly	from 0 to 100 kN
24	GOST R 52565 Clause 9	HV circuit breakers	27.12.10.110	8535210000 8535290000	Geometric parameters during the safety check	from 0 to 10000 mm
					Tightening torque	from 0 to 100 kgf

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					Auxiliary circuit insulation tests with AC voltage during safety checks Testing the strength of insulation of the main circuits with a short-term AC voltage Testing the strength of insulation of the main circuits with lightning impulse voltage Electric heating test The value of the permissible heating temperature Measuring the value of electrical resistance Measurement of efforts during operation when the serviceability of the operation of mechanisms is checked and mechanical wear resistance is tested Measurement of the contact stroke during operation when the serviceability of the operation of mechanisms is checked and mechanical wear resistance is tested Cold ambient temperature parameters High ambient temperature parameters Humidity parameters	from 0.1 to 5 kV from 0 to 500 kV from 0 to 1600 kV from 0 to 4000 A from 0 to 250 °C from 0.1 μΩ to 1 kΩ from 0 to 100 kN from 0 to 10000 mm from minus 70 to 0 °C from 0 to plus 150 °C from 10 to 98%
25	GOST 17717 Clause 7	HV load breakers	27.12.10.110	8535210000 8535290000	Geometric parameters during the safety check Tightening torque Auxiliary circuit insulation tests with AC voltage during safety checks Testing the strength of insulation of the main circuits with a short-term AC voltage Testing the strength of insulation of the main circuits with lightning impulse voltage Electric heating test The value of the permissible heating temperature Measuring the value of electrical resistance Measurement of efforts during operation when the serviceability of the operation of mechanisms is checked and mechanical wear resistance is tested Measurement of the contact stroke during operation when the serviceability of the operation of mechanisms is checked and mechanical wear resistance is tested, mm	from 0 to 10000 mm from 0 to 100 kgf from 0.1 to 5 kV from 0 to 500 kV from 0 to 1600 kV from 0 to 4000 A from 0 to 250 °C from 0.1 μΩ to 1 kΩ from 0 to 100 kN from 0 to 10000 mm

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					Cold ambient temperature parameters	from minus 70 to 0 °C
					High ambient temperature parameters	from 0 to plus 150 °C
					Humidity parameters	from 10 to 98%
					IP protection parameters	from 00 to 44
26	GOST R 52726 Clause 8	HV disconnecting switches and earthing devices.	27.12.10.120	8535309000 8535309009	Geometric parameters during the safety check	from 0 to 10000 mm
					Measurement of efforts during operation when the serviceability of the operation of mechanisms is checked and mechanical wear resistance is tested	from 0 to 100 kgf
					Checking the electrical resistance of the earthing circuit during safety checks	from 0.1 μΩ to 1 kΩ
					Checking the performance of mechanisms, as well as electrical devices with voltage	from 0 to 600 V
					Testing the strength of insulation of the main circuits with a short-term AC voltage	from 0 to 500 kV
					Testing the strength of insulation of the main circuits with lightning impulse voltage	from 0 to 1600 kV
					Testing the insulation of auxiliary circuits and control circuits with short-term AC voltage	from 0.1 to 5 kV
					Electric heating test	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
					Checking the electrical resistance of the main circuits	from 0.1 μΩ to 1 kΩ
					Checking the electrical resistance of auxiliary contacts	from 0.1 μΩ to 1 kΩ
					Testing of auxiliary contacts with rated short-time withstand current	from 0 to 600V
					Testing of auxiliary contacts for breaking capacity	from 0 to 600V
					Reliability test	from 0 to 2000 mm
					Efforts during operation, when locking devices are tested	from 0 to 10000 mm
					Cold ambient temperature parameters	
					High ambient temperature parameters	
					Humidity parameters	
					IP protection parameters	
					Tests under ice formation	

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					Force parameters during operation, during testing of transportation stability	
					Geometric parameters during the transportation stability test	
					Checking the electrical resistance of the earthing circuit	
27	GOST R 51321.1 Clause 8	LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000	Geometric parameters during the checking of security requirements,	from 0 to 10000 mm
					Force parameters during operation when safety requirements are checked,	from 0 to 100 kgf
					Temperature rise limit values per rated current,	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
					Electrical insulation properties	from 0.1 to 5 kV
					Electrical insulating properties with lightning impulse voltage	from 0.1 to 18.5 kV
					Gap distances and creepage distances	from 0 to 20000 MΩ
					Force parameters during operation when operational performance of mechanical parts is checked	
					Geometric parameters when operational performance of mechanical parts is checked	
					Insulation resistance	
28	GOST 3484.2 Clause 2	Power transformers	27.11.4	8504210000 8504220000 8504310000	Temperature rise limit values at rated current	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C
29	GOST 3484.3	Power transformers, voltage class up to 10 kV	27.11.4	8504210000 8504220000 8504310000	Insulation resistance	from 0 to 20000 MΩ
30	GOST R 56738 Clause 7	Power transformers	27.11.4	8504210000	Testing the strength of insulation of the main	from 0 to 500 kV

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				8504220000 8504310000	circuits with a short-term AC voltage	
					Testing the strength of insulation of the main circuits with lightning impulse voltage	from 0 to 1600 kV
31	GOST R 56738 Clause 10.	Power transformers	27.11.4	8504210000 8504220000 8504310000	Testing the strength of insulation of the main circuits with a short-term AC voltage	from 0 to 500 kV
32	GOST 22765	Power transformers	27.11.4	8504210000	Testing the strength of insulation of the main circuits with a short-term AC voltage	from 0 to 500 kV
		Voltage transformers	27.11.4	8504220000 8504310000 8504312100	Testing the strength of insulation of the main circuits with lightning impulse voltage	from 0 to 1600 kV
33	GOST 17441 Clause 2	Packaged Transformer Substations (PTS)	27.11	8504000000	Electrical resistance measurement	from 0.1 $\mu\Omega$ to 1 k Ω
					Cold ambient temperature parameters	from minus 70 to 0 °C
					High ambient temperature parameters	from 0 to plus 150 °C
		KRU type switchgears	27.12	8537200000	Humidity parameters	from 10 to 98%
		KSO type switchgears	27.12	8537200000	Measurement of geometric dimensions	from 0 to 10000 mm
		HV power circuit breakers.	27.12.10.120	8535290000 8535210000	Tightening torque	from 0 to 100 kgf
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.110	8535309009 8535309000	Temperature rise limit values at rated current	from 0 to 4000 A
LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000	The value of the permissible heating temperature	from 0 to 250 °C		

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34	GOST R 51909 Clause 5	Packaged Transformer Substations (PTS)	27.11	8504000000	Force parameters during operation, during testing of transportation stability	from 0 to 100 kgf
					Geometric parameters during the transportation stability test	from 0 to 10000 mm
		KRU type switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		

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		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
35	GOST 30630.2.1 Clause 4	Packaged Transformer Substations (PTS)	27.11	8504000000	High temperature parameters during ambient air operation	from 0 to plus 150 °C
		KRU type switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		

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		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
36	GOST 30630.2.1 Clause 5	Packaged Transformer Substations (PTS)	27.11	8504000000	High temperature parameters during ambient air transportation	from 0 to plus 150 °C
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		

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		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
37	GOST 30630.2.1 Clause 6	Packaged Transformer Substations (PTS)	27.11	8504000000	Low temperature parameters during ambient air operation	from minus 70 to 0 °C
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		

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		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
38	GOST 30630.2.1 Clause 7	Packaged Transformer Substations (PTS)	27.11	8504000000	Low temperature parameters during ambient air transportation	from minus 70 to 0 °C
		KRU type Switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		

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		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
39	GOST 30630.2.1 Clause 8	Packaged Transformer Substations (PTS)	27.11	8504000000	Cold ambient temperature parameters	from minus 70 to 0 °C
					High ambient temperature parameters	from 0 to plus 150 °C
		KRU type switchgears	27.12	8537200000		
		KSO type switchgears	27.12	8537200000		

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		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
40	GOST 30630.2.6 Clause 7	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection (rain exposure)	from XX to 44
		KRU type Switchgears	27.12	8537200000		

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		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
41	GOST 30630.2.6 Clause 8	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection (drop protection)	from XX to 44
		KRU type Switchgears	27.12	8537200000		

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		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
42	GOST 30630.2.6 Clause 10	Packaged Transformer Substations (PTS)	27.11	8504000000	IP degree of protection (splash protection)	from XX to 44
		KRU type switchgears	27.12	8537200000		

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		KSO type switchgears	27.12	8537200000		
		HV load breakers.	27.12.10.110	8535210000 8535290000		
		HV power circuit breakers.	27.12.10.110	8535210000 8535290000		
		HV disconnecting switches and earthing devices, isolating switches and short-circuit switches.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
		LV complete devices for control, distribution of electrical energy and protection of stations, substations, networks and systems	27.12	8537100000		
43	GOST R 55190 Clause 6.3	KRU type switchgear (KSO)	27.12.10.190	8537 200000	Electrical resistance measurement	from 0.1 $\mu\Omega$ to 1 k Ω
44	GOST R 55190 Clause 6.4.1	KRU type switchgear (KSO)	27.12.10.190	8537 200000	Temperature rise limit valuesat rated current	from 0 to 4000 A
					The value of the permissible heating temperature	from 0 to 250 °C

1	2	3	4	5	6	7
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					Electrical resistance measurement	from 0.1 $\mu\Omega$ to 1 k Ω
45	GOST R 55190 Clause 6.2	KRU type switchgear (KSO)	27.12.10.190	8537 200000	Testing the strength of insulation of the main circuits with a short-term AC voltage	from 0 to 500 kV
					Testing the strength of insulation of the main circuits with lightning impulse voltage	from 0 to 1600 kV
46	GOST 9920				Length of external insulation leakage path	from 0 to 10000 mm
		KRU type Switchgears	27.12.10.190	8537 200000		
		KSO type switchgears	27.12.10.190	8537 200000		
		AC load breakers for voltage from 3 to 10 kV	27.12.10.110	8535210000 8535290000		
		AC circuit breakers for voltage from 3 to 750 kV	27.12.10.110	8535 210000 8535 290000		
		AC disconnecting switches and earthing devices for voltage over 1 kV.	27.12.10.120	853530900 8535309009		
		LV circuit breakers for household and industrial-purposes	27.12.10.110	8536200000		
		Current transformers	27.11.4	8543129000		
		Voltage transformers	27.11.4	8504312100		
		Power transformers	27.11.4	8504210000 8504220000 8504310000		
LV complete devices of control, distribution of	27.12.31	8537100000				

1	2	3	4	5	6	7
		electrical energy.				

The Testing Center Director
"Group of companies "Electroshield" - TM Samara"
Title of Authorized Person

signature of the Authorized Person

A. Yu. Mikhailyuk
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L.S.

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