ELECTRICITY PRODUCTION AND TRANSMISSION SOLUTIONS

Engineering

Engineering

ABOUT US

- Ukrainian engineering company represented on the world market
- SIEMENS Certified Partner in Solution Partner status
- EPC contractor in the field of automation and power supply of industrial enterprises
- Over 15 years of work, more than 600 complex projects have been implemented in various industries
- Performs work in the areas of electric drive control, technical safety and telecommunication systems
- The company has more than 210 employees
- The only licensee of SIEMENS in Ukraine in the status of Technology Partner
- The company is a member of the German-Ukrainian Chamber of Industry and Commerce (AHK)

ACTIVITIES

- Automated control systems for technological processes
- Electric drive systems
- Power supply systems up to 110 kV
- Technical security systems and telecommunication systems
- Service maintenance
- Consulting services
- Outsourcing

Complex projects of any scope and difficulty:

- Development of design documentation
- Software development
- Testing and quality control by an electrical laboratory
- Purchase and delivery of equipment to the customer
- Installation of equipment
- Commissioning works
- Commissioning and training of customer's personnel
- Service maintenance

COMPETITIVE ADVANTAGES

Full production cycle

Maximum depth of added value formation

Localization of technologies from world leaders in the industry (franchises)

Formed production system of the company:

- well-established business processes of the enterprise
- multi-level training of employees
- high-tech equipment
- an implemented product quality control system, etc.

Compliance of products with international standards

Modern software:

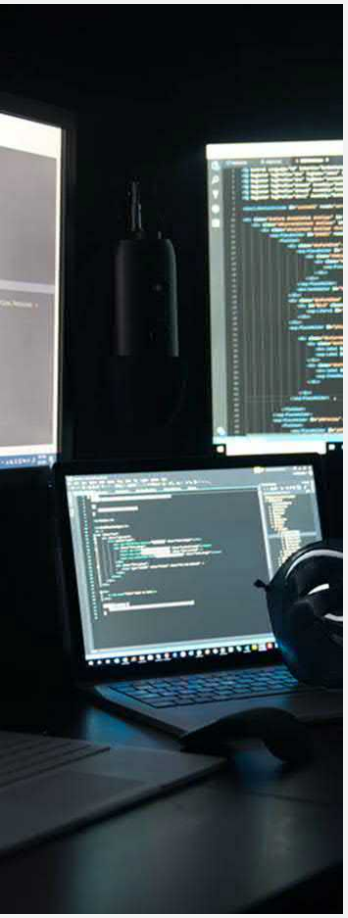
- Wrike
- EPLAN
- AutoCAD
- Pipedrive
- SAP
- etc.

Own innovative solutions

Weighted pricing policy

The total area of the plant is 7500 sq. M.

OUR SOLUTIONS



- Turnkey solutions for power supply and automation systems for biomass cogeneration plants up to 25 MW.
- Turnkey solutions for power supply and dispatching systems for SPPs of any capacity based on central inverter stations.
- Turnkey solutions for substations with voltage up to 35 kV based on our own medium and low voltage switchgears.
- Equipment for providing relay protection and automation, for auxiliary needs at substations of any voltage class.
- Turnkey systems for dispatching and metering of energy resources.
- Design, manufacture, installation and commissioning of modular transformer substations with voltage up to 35 kV based on block-modular building.

SIVACON S8

LVCD with voltage up to 1000V and for currents up to 7000A

USAGE

- As main and auxiliary switchboards
- As shields for electric motor control stations
- As input distribution boards (up to 7010 A)

SCOPE OF APPLICATION

- Grain elevators
- Oil extraction plants
- Oil refining and chemical industry
- Energy: power plants and auxiliary installations
- Heavy industry: production lines
- Infrastructure: building complexes
- Regions of seismic activity (up to 8 points)
- Installation on ships and offshore platforms

SPECIFICATIONS

Basic standards and regulations	IEC 61439-2 (IEC 60439-1), EN 50274, IEC/TR61641
Rated voltage of alternating current, Hz	up to 690 V 50
Maximum impulse voltage, Kv	8
Rated insulation voltage, V	1000
Internal separation according to IEC 61439-2	1...4b Type 7
Rated current of horizontal busbars, A	Top / back up to 6300/7010
Degree of protection according to IEC 60529	till IP54
Height (without base), mm	2000, 2200
Width, mm	200, 350, 400, 600, 800, 850, 1000, 1200
Depth (one-sided installation of devices, connection from the front), mm	500, 600, 800
Depth (one-sided installation of devices, connection from the back), mm	800, 1000
Depth (two-sided installation of devices), mm	1000, 1200
Working temperature	-5... +40 °C

SELAM

LVCD with voltage up to 1000V and for currents up to 7000A

The SELAM LVCD line includes the following elements of the power system:

- Boards of the main and secondary distribution (main switchboard, RU, VRU, etc.)
- Reactive power compensation cabinets
- Power control cabinets for technological electrical equipment (AShchSU, ShchSU, MSS, etc.)
- APCS cabinets
- Relay protection and automation cabinets (RZiA)

SELAM. MAIN CHARACTERISTICS

Rated operating voltage of alternating current 50 (60) Hz, V	till 690	Internal separation	till 4b
Rated operating voltage of a direct current, V	till 1000	Degree of protection	till IP54
Rated voltage of isolation of alternating current 50 (60) Hz, V	1000	Height (without base), mm	2000, 2200
Rated voltage of DC isolation, V	1500	Width, mm	400...1200
Rated current, A	till 4000	Depth (single row installation), mm	600...800
Rated peak withstand current Ipk, kA	143	Working temperature	-25... +40 °C
Rated short-time withstand current Icw (1sec), kA	65	Frame	sheet galvanized steel
		Busbar material	copper, aluminum

SELAM. MAIN ADVANTAGES

- High reliability, ease of maintenance and installation, maximum personnel safety
- Fast replacement and build-up of functional units
- High degree of internal separation (up to 4b)
- Each low-voltage distribution device "SelaM" is assembled from modules. Modular design allows flexible adaptation of the installation to changing technical requirements
- Different levels of design for arc, earthquake, shock and vibration resistance, depending on operating conditions and the environment
- Compactness and rational use of the installation area due to the universal dimensions of the sections, high installation density
- High degree of internal separation (up to 4b)
- Adaptation to new operating conditions is carried out by replacing or implementing new modules
- Possibility of using components from leading domestic and European manufacturers; the ability to freely configure functional blocks, as well as use, if necessary, atypical blocks in accordance with customer requirements

OBERON. MAIN CHARACTERISTICS

OBERON
SE group Int. Technology

Medium voltage switchgear up to 17.5 kV and for currents up to 3600A

Rated voltage, kV	till 17,5
Rated frequency, Hz	50/60
Rated test voltage, kV	42
Rated lightning impulse voltage, kV	95
Rated short-circuit breaking current, kA	40
Rated surge current at 50/60 Hz, kA	128
Rated current of the busbars, A	till 3150
Width, mm	600, 750, 1000
Height, mm	2400
Depth, mm	1515

OBERON. MAIN ADVANTAGES

OBERON
SE group Int. Technology

- Frame construction provides increased strength
- The pull-out element does not require an inventory trolley
- All compartments are separated from each other by metal partitions
- The sliding element moves from the test position to the working position and back when the compartment door is closed
- Earthing switch with spring-loaded knives
- Availability of all necessary locks against incorrect actions of personnel
- The cabinet is made of high quality galvanized steel
- Voltage transformers are mounted on a withdrawable element
- Two-stage arc protection. Combination with limit switches on overpressure relief valves

SIMOPRIME. MAIN CHARACTERISTICS

КРУ среднего напряжения до 17,5Кв и на токи до 3600А

Rated voltage, kV	till 17,5
Rated frequency, Hz	50/60
Rated test voltage, kV	42
Rated lightning impulse voltage, kV	95
Rated short-circuit breaking current, kA	40
Rated surge current at 50/60 Hz, kA	104
Rated current of the busbars, A	till 3600
Width, mm	600, 800
Height, mm	2253 (2425)
Depth, mm	1860

SIMOPRIME. MAIN ADVANTAGES

SAFETY

- All switching operations, including emergency manual switching, are possible only when the door of the high-voltage compartment is closed.
- Interlocks between the door of the high-voltage compartment and switching devices
- Moving the circuit breaker trolley is possible only when the door of the high-voltage compartment is closed.
- Metal earthed safety shutters and partitions, sectioning class: PM
- Internal arc resistance up to 40 kA, 1 sec, according to IEC 62271-200
- Application of vacuum circuit breakers

RELIABILITY

- Type-tested prefabricated switchgear according to IEC 62271-200
- Type tests of a circuit-breaker installed in a cubicle
- Application of standard components available worldwide
- Application of maintenance-free vacuum circuit-breakers
- The quality assurance system is certified for compliance with the ISO 9001 standard
- Manufacturing based on international best practices

HIGH PERFORMANCE

- LSC2B classification according to IEC 62271-200

PROJECTS

Kernel (Ukraine)

Power supply and automation of three CHPPs (Bandurskiy Vegetable Oil Extraction Plant, Pridneprovskiy Vegetable Oil Extraction Plant, Volchanskiy Vegetable Oil Extraction Plant) using biomass with a capacity of up to 25 MW.

Energoatom (Ukraine)

South-Ukrainian NPP: supply of 330kV surge arresters from SIEMENS.

Ukrenergo (Ukraine)

A feasibility study has been developed for the introduction of sources of autonomous electricity and heat supply for the management apparatus of the State Enterprise "NPC" Ukrenergo ", located at: Kiev, st. S. Petlyura, 25.

Ajax Dnipro (Ukraine)

Design, manufacture and commissioning of RU-0.4 kV biomass cogeneration plant with a capacity of 16 MW.

PROJECTS

КЕБК

"Kiev Energy Construction Company" LLC (Ukraine)

A project for modernization of relay protection and automation has been implemented. In the course of the project implementation, more than 50 cabinets of relay protection and automation, emergency automation for 750 kV substations were manufactured for: Vinnitskaya, Zapadnoukrainskaya, Dneprovskaya, Yuzhnodonbasskaya, Severokrainskaya, Zaporozhskaya.

СОЮЗ

Soyuz Corporation (Ukraine)

Participation in the technical re-equipment of the 330 kV Novokievskaya substation by order of the Soyuz corporation for the State Enterprise NPC Ukrenergo. S-Engineering employees developed, manufactured and delivered a complete transformer substation (CTS) for auxiliary needs 38.5 / 0.4 kV with a capacity of 630 kVA.

The optimal layout of the equipment made it possible to complete the package transformer substation in the dimensions of a standard container in a block-modular building (BMB), which was delivered to the Novokievskaya substation.

DTEK

DTEK

- **Kurakhovskaya TPP. Complex of works on reconstruction of electrical equipment of power unit No. 7.**
- **Zuevskaya TPP. Complex of works on modernization of the raw coal feeder electric drive. Modernization of the thyristor excitation system of a ball-drum mill. Modernization of the control system of the coal dust supply line at TPP.**
- **Luhansk TPP. Complex of works on modernization of the electric drive of dust collectors of power unit No. 13.**

MAIN LICENSES AND CERTIFICATES

- Certificate ISO 9001:2015 "Quality Management System"
- ISO 14001:2015 Environmental Management System Certificate
- ISO 45001:2018 Occupational Health and Safety Management System
- ISO 50001:2011 Energy Management System Certificate
- License of the State Architectural and Construction Inspection (Series AE No. 262193 dated 01.07.13)
- License of the State Department of Fire Safety of the Ministry of Emergency Situations of Ukraine (Series AE No. 184201 of 27.12.12)
- Permit to start high-risk work (No. 500.13.51 dated 15.06.13)
- Siemens Certificate "System Integrator"
- Certificate for the design and manufacture of complete low-voltage switchgears for currents up to 7400A, manufactured using SIEMENS SIVACON technology
- Certificate for the production of 6-10 kV medium voltage switchgears for currents up to 3600A using SIEMENS SIMOPRIME technology
- SIEMENS SOLUTION PARTNER AUTOMATION certificate

Engineering

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