



building your systems

PRESENTATION





Nowadays, building a trustworthy electric infrastructure is the key to optimal energy efficiency management, security of necessary equipment and people in the building, as well as optimizing the resources of each company.

Building an efficient and multifunctional system environment starts with designing the cable infrastructure, goes through optimizing resources and ends with the successful integration of the equipment and putting together building installations in an entire system.

This process not only optimizes the integration of separate systems, but also guarantees minimizing their maintenance expenses. We believe that in this area we take advantage of our practical experience and knowledge as consultants, designers and partners at every stage of implementing your investment projects.

Our motto is “Always be at our customer’s side” and for that we aim to be responsible for your electric communication infrastructure – designing, optimization, integration and maintenance.

Our goal is to provide our customers with entire building up and maintenance of all kinds of electric installations, as well as to optimize their parameters so that they function optimally.

ABOUT ABC SYSTEMS

“**ABC Systems**” **OOD** is a private Bulgarian company, specialized in designing, building up, certifying and maintenance of all kinds of electric installations, security systems and communication solutions. We provide engineering services for designing, building up, maintenance and repair of low and extra-low voltage and fiber optic installations in the construction of new administrative, public, industrial and residential buildings, reconstruction and overhaul of existing ones. We have also specialized in manufacturing of copper and fiber patch cables.

The company is an assignee of “**ABC Net**” **EOOD** with 14 years of experience in providing these services on the Bulgarian and international market and has very strong relations with world class providers represented in Bulgaria. The team has had one of the biggest and complex infrastructure solutions in the field of electro installations, made in the country in the past 10 years.



TEAM

A proven team of professionals including 45 employees, qualified engineers, designers and installers, organized in five main departments, work in **“ABC Systems” OOD**:

- Marketing, sales and logistics department;
- Engineering department;
- Installation works department;
- Administrative department;
- Production.

All employees have completed special trainings and possess a wide range of certificates and experience, gained over the years, which help us with the competent integration of both standard solutions and specific customer orders.

Each system that we build is measured, certified and serviced (including warranty and post warranty service), with our specialists available for customers 7 days a week 24 hours a day.

In this way we achieve and guarantee our clients and partners high quality and professionalism.

The company's design team has completed trainings and is formally certified by the manufacturers of the products we offer, which gives us the opportunity to require the maximum guarantee from them and to offer optimized projects based on our installation experience.

Our installation teams have completed trainings for building and integration of a wide range of both low and extra low voltage systems. Moreover, they gain new skills and knowledge being certified again at regular intervals.

Our system engineers and salespersons are trained to offer entire solutions for all types of electrical installations, as well as their integration.

CERTIFICATES



“ABC Systems” OOD has many certified personnel from brands, as well as from independent certifying authorities.

Brand certificates

- R&M - R&Mfreenet Qualified Copper and Fiber Optics Installer; R&Mfreenet Certified Designer;
- NEXANS – Certified LANmark-EVO Cabling Standards;
- J&E – JYH ENG SCS Installer;
- Legrand - Certified Copper and Fiber Optics Installer;
- Tyco Electronics AMP – ACT SM I – LAN Copper and Fiber Optics Installer;
- TELEGAERTNER –Authorized Installer;
- KRONE – PremisNET – Associate Installer Certificate;
- AMAG Technology – AMAG Symmetry V6 Sales and Technical Certificate;
- Schrack Technik – Electrical Installer Certificate;
- ZyXEL Certified Network Engineer Switch Level 1.

Independent certifying authorities

- ISO 9001:2008;
- OHSAS 18001:2007;
- ISO 14001:2004;
- Bulgarian Construction Chamber;
- Certificates from the Chamber of Engineers in the Investment Design;
- Certificate according to DECREE № І3-2815/07.11.2011;
- Optical Technology Training Limited – Advanced OTDR Testing and Documentation;
- Infrared Training Center (ITC) – Level I Thermography Training Course;
- State Agency for Metrological and Technical Surveillance – Certificates for operating with elevating work platform.

“ABC Systems” OOD gives internal trainings to its employees on a regular basis concerning technical and organizational topics related to ISO, which aims high professionalism and constant improvement for both engineers and installers.



ACTIVITIES AND SERVICES

Design work

Within **“ABC Systems” OOD** works a team of qualified designers with many years of experience, qualification and certificates, needed for the designing of:

- Indoor and outdoor electrical installations in administrative and residential buildings;
- Fiber optic networks;
- Low voltage installations;
- Lighting installations;
- Fire alarm system installations;
- Lightning protection installations;
- Grounding installations;
- Structured cabling systems;
- Designing of solutions for active equipment for Local Area Networks (LAN) and Wide Area Networks (WAN);
- Developing, integration and maintenance of complete communication solutions for big organizations' needs;
- Cable television networks;
- Mass notification and alarm systems;
- Access control and parking systems;
- Closed-circuit television systems.

The designers of the company hold certificates from the Chamber of Engineers in the Investment Design in Bulgaria. The company has permission for design, coordination, building and maintenance of fire alarm systems according to DECREE № 13-2815/07.11.2011 (concerning rules and regulations about licensing and oversight of businesses that provide fire safety on site and/or fire safety equipment and facilities).

Our designers elaborate projects in accordance with the customer's request, following the requirements of Decree №1 as of 27.05.2010 for designing, building and maintenance of extra low voltage electric devices in buildings and Decree №3 as of 9.06.2004 for the structure of electric devices and electrical power transmission lines.

Electric installations

Research, offering, execution, testing, maintenance, repairs and reconstruction of electric installations in residential, industrial and public service buildings.

Our specialists offer flexible solutions when choosing materials and equipment, in line with the site's specificities and with the requirements and budget of the customer.

The company implements the following electric installations:

- Outdoor electric wiring of buildings;
- Diesel generators and Uninterruptable Power Supply systems;
- Power compensation;
- Power supply lines built with cables and busbars;
- Indoor power supply installations – sockets , electric motors and equipment;
- Lighting installations – interior, evacuation, facade and park lighting with high variety of illuminants and modern solutions for lighting management;
- Lightning protection installations and grounding installations;
- Supply and installing of main distribution boards, module switch boards and control panels;
- Anti-icing systems of gutters and drains;
- Snow and ice protection systems;
- Photovoltaic systems installations.

Communication systems

Nowadays communication systems are of high importance in every organization. That is why their planning, building and exploitation is very critical and **“ABC Systems” OOD** can perform in a way that the client receives a service of highest quality. Our engineers and technicians' experience gives us the vigour and ability to offer an entire set of engineering and technical solutions.

“ABC Systems” OOD disposes of a laboratory for manufacturing patch cables and pigtails which makes us unique in Bulgaria. We are one of the very few companies that can elaborate specific patch cables at very short notice, including such with non-standard length, different types of connectors and all types of fiber.

Within the laboratory operates a team for elaborating and measuring fiber cables for a single building, as well as for infrastructure sites.

Alarm systems

The company performs entire engineering of security systems, including:

- Fire alarm systems;
- Alarm and perimeter guard systems;
- Close-circuit television systems;
- Access control systems;
- Intercom systems;
- Mass notification and alarm systems.

We offer entire solutions in the field of security in accordance with the specific requirements and budget of every customer. We use the entire range of security systems.

PRODUCT PORTFOLIO

MEASUREMENT DEVICES

Fiber measurements

“ABC Systems” OOD disposes of high technology devices for splicing and measuring of fiber optic wires:



Fujikura 60S	Splice machine
Fujikura 70S	Splice machine
Agilent E6000C - 43 db	Optical Time Domain Reflectometer(OTDR)
OTDR—JDSU JDEM2000HVT	Optical Time Domain Reflectometer(OTDR)
Agilent Wirescope 350	Multimode fiber measuring device

Measuring structured cabling systems

The appliances we have are provided by leading companies for measuring devices. A thorough analysis of our laid cables is being made using them and **“ABC Systems” OOD** provides warranty for the whole network on the basis of the results.

FLIUIKE DTX Cable Analyzer 1800	Cable analyzer for copper wires up to category 7	
Agilent Technologies Wirescope 350/1000MHz	Cable analyzer for copper wires up to category 7	
Agilent Technologies Wirescope 350/300MHz	Cable analyzer for copper wires up to category 6	

Thermographic camera

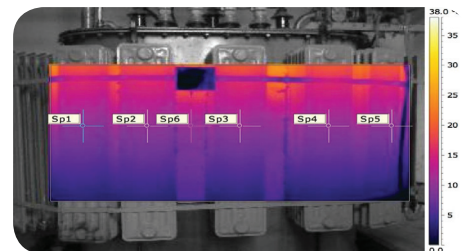
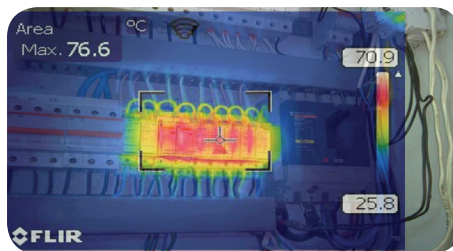
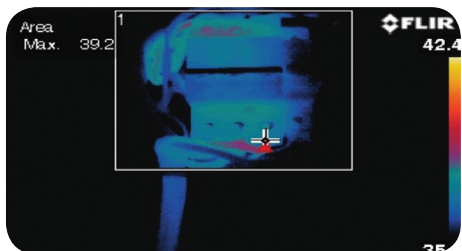
The thermographic (infrared) camera is a device for locating and visualizing thermal energy, radiated by an object in the infrared range of the electromagnetic spectrum. The infrared energy is invisible to the human eye.



FLIR T425

Thermographic (infrared) camera

“ABC Systems” OOD disposes of certified employees who have knowledge and competencies for investigating and analyzing thermographic measurements.



PRODUCTION

“ABC Systems” OOD is one of the few Bulgarian companies which manufacture fiber optic items. We have many years of experience in elaborating a wide range of such products.

The optic laboratory of **“ABC Systems” OOD** has the capacity to produce a wide range of patch cables and pigtails:

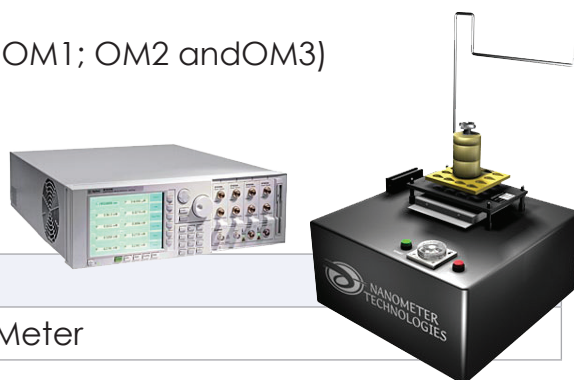
Connectors type: SC, ST, LC, MTRJ, FC

Type of the connector: PC, UPC and APC

Type of the fibers: Single-mode(OS2) and multi-mode(OM1; OM2 and OM3)

The company disposes of laboratory equipment for installing and testing fiber optic connectors:

Nanometer Technology MCP 12	Polisher
Agilent 8164A	Analytical Power Meter



MECHANIZATION

“ABC Systems” OOD disposes of a wide range of vehicles, elevating work platforms, instruments and specialized devices.

BOSC Hdrill machine

Electric and motor elevating work platform up to 17 meters of height

Specialized minibuses for splicing fiber passive equipment

Vehicles, automobiles, pick-ups and minibuses

All terrain equipment, an excavator, manitou and others



LIST OF REFERENCES AND PROJECTS

State and public institutions

Registry Agency
Central Customs Directorate - Sofia
State Gambling Commission
Commission for protection of competition
Ministry of Education and Science
Ministry of finance
National project "Cadastre development in the Republic of Bulgaria" at the Ministry of Agriculture and Food
Sofia Municipality
Sofia Court House
Territorial directorate of the national revenue agency Sofia
National Revenue Agency – Rousse city
SOS children's villages Bulgaria
Head office of National Electricity Company
Police Academy

Education and science

American University in Bulgaria
Burgas Free University
Bulgarian Academy of Sciences - Institute of Ecology
Bulgarian Academy of Science - Institute of Astronomy
"Todor Kableshkov" University of Transport
"G. S. Rakovski" National Defence Academy
University of Architecture, Civil Engineering and Geodesy
123 United Kindergarten
19 Secondary School „Elin Pelin“
Technical University of Sofia
School of Mathematics Sofia

Health services

Military Medical Academy
University Hospital "Tsaritsa Yoanna - ISUL"
Malinov Clinic
University Specialized Hospital
for Active Treatment "Sveta Ekaterina"
Medical Center Reproduction Health "Dr. Shterev"

Industry, banks and private investors

Actavis - Dupnitsa city, Solid drug forms department
Alpha Bank - Head office
Blizoo AD - Head office
Bulgarian Postbank
"Fantastico" - Supermarkets
Newspaper group Bulgaria
Vivacom - Head office
Mall Galleria Burgas
Grand Mall Varna
Expo 2000
Electricity System Operator EAD
Nikopol Tissue Mill
Medica AD - Sandanski city
Zagorka AD - Stara Zagora city
Zagorka AD - Sofia city
Carrefour - Supermarkets
Kaufland Bulgaria EOOD & co. kg - Supermarktes
Arena Zapad cinema
4D cinema Paradise Center
Burgas Airport
Mercedes - Varna city
Arena Mall - Stara Zagora city
Galleria Mall - Plovdiv city
Mall - Ruse city
Serdika Center - Sofia city
Sky City Shopping Mall - Sofia
"The Mall" - Hermes park - Sofia
Montupet - Ruse city
National Electricity Company EAD
Risk Engineering Ltd.

Rittal EOOD - Bulgaria
CNSys PLC
House of Culture "Boris Hristov" - Plovdiv city
Sopharma AD - New solid drug forms department „Platform B“, district Ilyantsi
Sopharma AD - "Sopharma Tower" block A and block B
Sofia France Auto AD - Sofia (Head office)
Stomana Industry S.A. - Pernik city
"TPP "Maritsa East 1" EAD - Galabovo city
"TPP "Maritsa East 2" EAD - Kovachevo village
Trakya Glass - Targovishte city
Metropolitan Hotel
Holiday Inn Hotel
Santa Marina Holiday Village-Sozopol city
Saint Ivan Rilski Hotel & Spa - Bansko city
Hill Tower - office building Sofia
VM Ware - office building Sofia
Urban Model - offices with shops and underground parking Sofia
Store "New Yorker" - Central Mall, Veliko Tarnovo
Salvamed AD - Sandanski city
Production building - Rakovsky city
Office building Regus Sofia City West
Store H&M - Mega Mall - Lyulin-Sofia
Stores H&M, RINO, TEODOR, Gruppo Fiori - Panorama Mall - Pleven city
Store PUMA - Sofia Ring Mall
Cinema center Cine Grand - Sofia Ring Mall
Aurubis Bulgaria - Pirdop city
Nestle - Sofia
"ABB Avangard" AD - Sevlievo city
LC Waikiki - Panorama Mall - Pleven city

Residential buildings

„Red Apple“ - residential building with shops, offices and underground parking Sofia, "Ivan Vazov"

Power production solar installations

Solar park - Bezmer village - (17 MW)
Solar park - Kaolinovovillage - 001 (5 MW)
Solar park - Kaolinovovillage - 026 (5 MW)
Solar park - Kaolinovovillage - 294 (5 MW)
Solar park - Kaolinovovillage - (60 MW)

Business partners

Aktor AD
AMIT Construction Ltd.
ANRAD Ltd.
Core Construction Ltd.
Miks - PS Ltd.
Mirtal OOD
Sienit OOD
Solarpro Holding AD
Softbuild OOD
Stroy Consult EOOD
Cordeel Bulgaria EAD

Suppliers of appliances and equipment

Bosch - Germany
Hochiki - Japan
Honeywel - USA
Kentek - Great Britain
Paradox - Canada
Rittal - Germany
Schrack - Austria
OBO Bettermann - Germany
Schneider - France
Legrand - France
ETI - Slovenia
Kopos Kolin - Czech Republic
Reichle & De - Massari AG - Switzerland
JE - Taiwan



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