

## Company Profile



Reliable, high quality solutions  
in the distribution and control  
of electricity.

Headquarters, Production & Stores  
ELECTROMATIC CONSTRUCTIONS LTD  
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Since 1969, an ever growing number of successfully completed projects bear the Electromatic label, testifying an exceptional capability in engineering, production and after sales service. To mastermind success, the Company has secured an efficient network of reputable suppliers and developed all the masterly skills and know-how to provide reliable, high quality integrated solutions in the distribution and control of electricity. Shaped by the growth of several decades, Electromatic offers today high levels of quality products and services that include consulting, designing, developing, assembling, testing and commissioning of LV switchboards, motor control centres, control panels, infrastructure process automation solutions and monitoring systems.



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Using knowledge and technology  
to refine perfection.



1969	1980	1988	1993	1996	1998	2000	2002	2008	2010	2015	2017
Establishment of Electromatic Constructions Ltd as a private limited company with the goal to provide reliable solutions wherever electricity is distributed and controlled.	A decade that brings steady growth to the Company and strengthens its leadership in the local market. Numerous Middle East contracts add new notable clients to an already wide clientelle.	Gregoris Markitanis acquires total control of the Company. Key to Electromatic's further expansion is the winning of a tender for the supply and commissioning of 27 fully automatic PLC controlled pumping stations for the Southern Conveyor - an important government irrigation project. By employing the latest electronic technology, Electromatic successfully completes the project thus securing its ability to bid and undertake large and complex contracts.	Winning a tough international competition in Jordan for the supply and commissioning of large mobile electrocenters including distribution and control of MV & LV circuits, firmly establishes the capability of the Company to undertake and successfully complete large international projects. The successful completion of the project also signifies the entrance of the Company into the Medium Voltage (MV) Switchgear sector.	The Company builds and moves to its new modern headquarters and production plant, at Latsia, Nicosia. Facilities create an excellent working environment.	Electromatic Constructions Ltd receives the Quality Management System Certification ISO 9001 and starts procedures to obtain the Certification for OHSAS 18001 (Occupational Health and Safety Management).	While expanding to new fields, Electromatic's local market leadership in the distribution and control of electricity and automation solutions reaches 48% market share. The Company receives the Occupational Health and Safety Assessment Certification OHSAS 18001:1999, being the first local company accredited with this.	In view of the island's accession into the European Union, Electromatic completes all necessary procedures for applying the CE marking on its products and issuing the relevant declaration of conformity.	Electromatic Constructions Ltd reaffirms its position as a Company of international status by competing against world renowned manufacturers and winning a multi-million project in Jordan for the supply and commissioning of 24 prefabricated electrocenters MV/ LV skid-mounted substations.	The Company implements a world-wide known business management software for enterprise resource planning and integrated with a new design software, fully automatizes and interlinks all its processes, including design, purchasing, stock control, production, technical files, administration and accounting.	Electromatic Constructions Ltd, recognizing the great importance of environmental protection and sustainability, obtains the Environmental Management System Certification ISO 14001.	With long standing co-operations with world famous contractors and a vast number of successfully competed international projects, stretching from the Far East, through Middle East, Europe and Africa and keeping up with newly implemented IEC 61439 standards, the Company continues into expanding and seeking new challenges in the high, medium and low voltage international electrical distribution and control markets.

Precisely to the customer's needs.



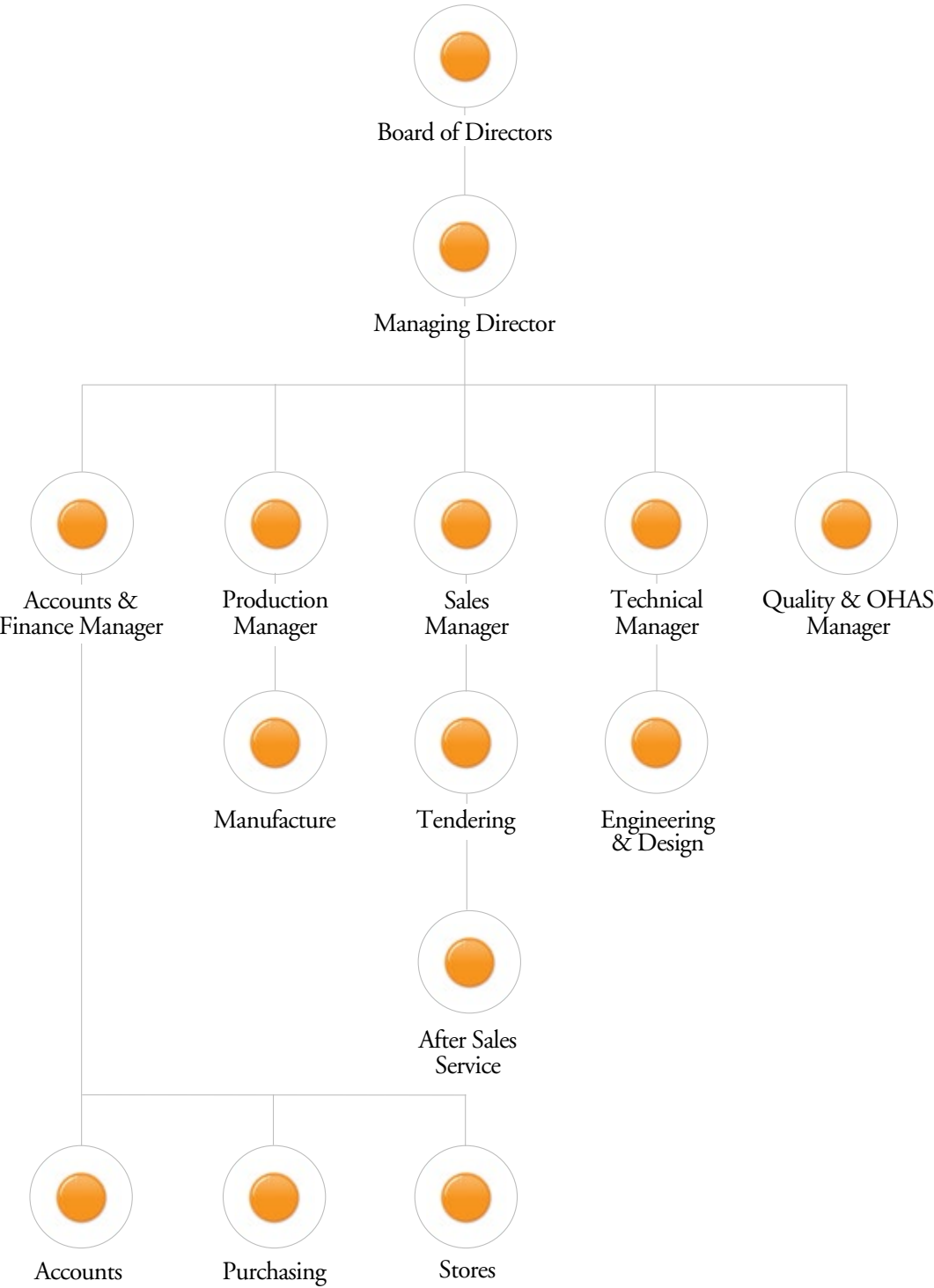
**Our Mission**

Our Company's aim is to provide customers with the best value for their money in a way that promotes mutual respect and customer loyalty. We promise to offer turn-key solutions utilising the best quality service, latest technology and a wide product range, underlining our total commitment to excellence. Our mission is enforced by our business strategy that combines profitability and competitiveness by meeting and exceeding customer expectations.

**Our Vision**

Our vision is to remain leaders in our field through the development and introduction of new ideas and technologies, always in the pursuit of worthwhile improvements and growth.

Organization chart





Setting the highest standards.

### Market Leaders

High quality products and excellent customer service elevate Electromatic to the top in its field, maintaining an approximate half of the local market share. Such firm foundations enabled the Company to leap overseas and penetrate several European and Asian markets, exports amounting to approximately 30% of the total sales, with endless expansion possibilities. The following values are a notable contribution to Electromatic's success:

- Non compromising personal safety
- Winsome product quality
- Reputable operational reliability
- Accessible standard components
- Ease of installation and maintainance
- Noteworthy versatile construction
- Flexible upgradable applications
- Commitment in after sales service



### Competitive Advantage

Electromatic's success in bidding competitively for large scale contracts is primarily attributed to its engineering expertise and flexibility to customise products according to clients' requirements and specifications. Its project-oriented method of operation provides a platform of engineering management that ensures technical and performance objectives are achieved as planned. The set-up is comprehensive containing the requisite management, engineering, quality assurance, administration and after sales support that are necessary to carry out and deliver on time complex projects.

Incorporated in all areas of engineering effort, is a continuous program that examines the design and function of systems to reduce production cost while retaining essential performance, reliability and maintainability. An ongoing development plan aims at locating and acquiring the best-in-class facilities, people and raw materials. When clients' requirements are as large and varied, Electromatic's competitive advantage relies on its ability to provide efficient, reliable and long-lasting comprehensive and upgradable solutions.





## Facilitating specification requirements.

### Modern facilities

Electromatic's modern and fully equipped factory, warehouse and office establishments are located in the Latsia Industrial Area, Nicosia, a convenient place for both, customers and suppliers. The complex stretches to a total area of 2,600 square meters, is fully air-conditioned and has all the necessary facilities to enhance productivity and professionalism

### Professional expertise

The accomplished engineering staff and expert workforce pool their knowledge and experience to provide professional, efficient, reliable and practical solutions. In addition, competent electromechanical engineering

is achieved within a co-operative environment, Electromatic placing a great emphasis on teamwork and engineering disciplines. Fully-trained engineers and technicians constantly receive the latest technology input necessary for their work. With such a set up, manned by capable professionals who shape the reputation of the Company in becoming an example for others to imitate, total integrated solutions add up to Electromatic's dominant reputation.

### Quality control

At Electromatic quality is not taken as an afterthought. It is considered very early, during the design stage, incorporated into the manufacturing process and monitored continuously in all stages of production, from raw materials to final handing over. A strategically planned quality control and inspection routine is applied by skilled supervising engineers who ensure total quality control throughout design, manufacturing, testing, delivery, commissioning and after sales maintenance.





Expertly designed,  
meticulously build.

### Main activities and products

From airports and ports to factories, power stations, water sewage treatment and desalination plants, hospitals, hotels, banks, malls, stores and more, Electromatic uses its diversified experience to offer solutions that cover the whole spectrum of Low Voltage applications: From enormous switchboards up to the smallest distribution board and process panel. As the control of electricity is increasingly becoming more dependant on automation and computerised information, we continuously upgrade our services

and products to support such technological advances, providing reliable distribution effective control and extensive monitoring. By strictly adhering to contract requirements, we proceed in designing complete and integrated systems, presenting our proposals for review and approval. After the manufacturing process and in-house testing, the final products are ready for installation and on site commissioning.

The offered warranty combined with reliable after-sales service and maintainance by our field engineers and technicians, ensure that all systems will perform promptly, offering customers security and confidence.

### Rigorous safety standards

To us personal safety is of prime importance. This is an area where Electro-



matic excels. The design of equipment safeguards any possibility for injury during normal installation, operation and service. In an event of a fault, it is ensured that the resultant arcing is ducted safely away from the operator. As it has been shown that most accidents occur due to the presence of poisonous gases such as Hydrogen Chloride, all parts used are manufactured from steel or non-halogenated plastic.

### Product range & services

- High & Medium GIS or AIS/HIS Switchgear
- Power & Distribution Transformers ONAN or Cast Resin
- LV Distribution Switchboards up to 8500A and 300KA pk to any European, International or British Standards
- LV Motor Control Centers (MCC's), fixed or drawout type to any standard according to customer's requirements
- Electrocenters fully equipped for power, telecom or other applications
- Any kind and size of motor starting equipment, including soft starters and frequency inverters
- Automatic Harmonics Filtering equipment
- Automatic power factor correction equipment
- Automatic Transfer Switches (ATS)
- Auto-synchronizing and paralleling power generation systems
- Architecture lighting controls and dimming systems
- Intelligent lighting Bus system EIB/KNX/DALI/Dupline
- Energy management and smart energy metering systems
- Microprocessor controlled systems with Programmable Logic Controllers (PLC's)
- Instrumentation and Control equipment
- Distributed Control Systems (DCS)
- Emergency Shutdown Systems (EDS)
- Building Management Systems (BMS)
- Telemetry Systems
- Wireless control and monitoring systems
- Supervisory Control and Data Acquisition Systems (SCADA) for any industrial or commercial application
- Fully integrated control rooms
- Security, Access Control and Fire Detection, Alarm and Extinguishing Systems
- Camera Surveillance and Monitoring Systems
- Power Feeders, Distribution and Lighting Busbars
- Generating Sets, high, medium and low speed.
- Uninterruptible Power Supply (UPS) systems in monoblock or modular versions
- DC Power Systems for Telecom or Power applications
- EPC contracts in the fields of energy, generation, transmission, distribution, monitoring and controls, including upgrade, renovation and refurbishment of existing installations and networks
- Solar Power Systems
- Solar heating and air-conditioning systems
- Traffic Enforcement Systems
- GMDSS Systems





# Strong and lasting partnerships.

## Top quality materials

By utilizing an in-depth knowledge of the industry and extensive testing of materials

and parts from suppliers all over the world, Electromatic has identified a number of high quality and reputable component manufacturers who meet a demanding range of exacting specifications. With respect to such criteria as performance and durability, strong business relations were established, many of them dating for almost a lifetime. Adequate inventory levels are maintained ensuring efficient customer care through a continuous process of reviewing and updating of parts utilization data.



## Equipment and parts

Electromatic is an agent/distributor or in business co-operation with major worldwide firms:

### MV/LV Switchgear & Control Gear

- ABB
- Siemens
- Schneider Electric
- GE
- Rockwell Automation
- Socomec
- Legrand

### Type/Tested Switchboard, MCC Fixed Draw-out Cubicle Systems, Racks & Enclosures

- Logstrup
- ABB
- Schneider Electric
- Siemens
- GE
- Eldon

### HV/MV Transformers

- ABB
- Siemens
- Schneider Electric
- GE
- Legrand

### Frequency Drives & Soft Starters

- ABB
- Danfoss
- Schneider Electric
- Rockwell Automation
- Siemens
- GE

### Power Factor Correction Capacitors, Reactors & Harmonic Filters

- ZEZ Silko
- Vishay
- Polylux

### Bus Bar Systems

- Legrand
- Vilfer Electric

- Logstrup

- Schneider Electric

### PLC, Control, Automation & Telemetry Systems

- GE
- Siemens
- Schneider Electric
- Rockwell Automation

### HMI Software Systems

- GE
- Siemens
- Schneider Electric
- Rockwell Automation

### Process & Analytical Instruments

- ABB
- Siemens
- Emerson Rosemount

### Protection Monitoring & Measuring Instruments

- ABB
- Siemens
- GE
- IME
- Socomec
- Carlo Cavazzi
- Schneider Electric

### Smart Metering

- ABB
- Siemens
- GE
- EMH

### MV/LV Fusegear

- GE
- Italweber
- Siba
- Mersen

### Power Switches

- Socomec
- Kraus & Naimer

### Cable Terminations

- Cabur
- Phoenix Contact

### Explosion Proof Equipment

- CEAG
- Cortem Group

## Lighting & Dimming Systems

- ABB
- Siemens
- Lite-Puter
- Schneider Electric
- Helvar
- Carlo Gavazzi

## Security, Fire, Access Control, Surveillance Systems

- Tyco

## Traffic Enforcement Systems

- Jenoptik

## Aeronautical Systems

- Thyssen Krupp
- Axa Power
- Safegate

## UPS Systems/DC Power Emergency Battery Lighting Systems

- Socomec
- APC Schneider Electric
- AEG Power Solutions
- AWEX Emergency Lighting
- Cooper GEAG

## Generating Sets

- SAKR
- Himoinsa
- COELMO

## Power Station Maintenance Services

- Turbine Services

## Pumping Systems

- SPX Flow

## Solar Power Equipment

- Suntech
- Solastor
- ABB
- GE

## Solar Heating & Air Conditioning

- AKOTEC
- BROAD X



Creative solutions for all requirements.

Infrastructure and Industry control solutions

With countless solutions for large infrastructure, industrial, oil and gas, water and waste water, desalination, food and beverage, chemical power, energy, pipeline, pumping, packaging etc, Electromatic optimizes the state of the art embedded computing platforms that enable, connect, monitor, analyse, predict and optimize operations like never before by combining the implemented innovative high technology with expertise

and know-how thus all areas of a sophisticated solution are covered with considerable reduction of cost of investment and system down time.

Total Integrated solutions

We offer and deliver comprehensive control hardware and software systems that drive connectivity among a wide range of industrial and commercial communication protocols so that the client can leverage a complete yet modular solution from a single provider, as we offer the depth and breadth of capabilities and solutions to satisfy the plant's specific needs.

Latest up to date Industrial Internet technologies

As a technology-driven company, we con-

tinually investigate and are ready to provide Industrial Internet based solutions for a wide range of applications for infrastructure, commercial and industrial sectors.

Long-term trusted provider

Through our team of experts you will experience the security of a mature and respected provider who understands your business and by employing proven methodologies and practices, offers solid and long lasting trouble free solutions to fully satisfy the needs.

High level support services

Our after sales support services offered by professionals with application and industry-specific expertise, 24/7 emergency support, online and on site attendance, management, and more.

Standards

IEC 60439-1:1999-09		
DIN EN 60439 Teil 1 (VDE 0660 Teil 500) 2000		
BS EN 60439-1-1999-08		
CSA-C22.2 No 31&14		
DIN 43671/12.75		
Pehla Richtlinie 4 1984		
IEC 529		
Ship Classification Societies		
Tests		
IPH (Berlin, Germany)		
ASTA (Rugby, England)		
KEMA (Arnhem, Holland)		
CSA (Rexdale, Canada)		(approval)
Underwriters Laboratory (Melville, USA)		(approval)
DEMKO (Denmark)		
Elektronikcentralen (Denmark)		
Germanischer Lloyd		(approval)
Lloyds Register of Shipping		(approval)
Der Norske Veritas		(approval)
The Russian Maritime Register of Shipping		(approval)
Bureau Veritas		(approval)
Electrical characteristics		
Rated voltage	(Ue)	690 V. AC
Rated insulation voltage	(Ui)	1000V. AC
Dielectric test voltage		3 kV
Rated impulse withstand voltage	(U imp)	12kV
Rated frequency		40-60 Hz
Rated current	(In)	250A-8500 A
Rated short-time withstand current	(Icw)	Up to 130kA 1 sec
Rated peak withstand current	(Ipk)	Up to 300 KA
Mechanical characteristics		
Degree of protection, IEC 529		Up to IP 54
Corners		Aluminium alloy
Framework steel (Aluzinc or painted)		2.0mm
Base frame steel (Painted)		2.5mm Dogal 350
YP		
Doors & plates steel (Painted)		1.5 or 2.0mm
Mounting plates steel (Aluzinc)		1.5mm
Internal partitions steel (Aluzinc)		1.0mm
Internal separation		Form 1-4b
Stainless steel		ANSI 304 160/80





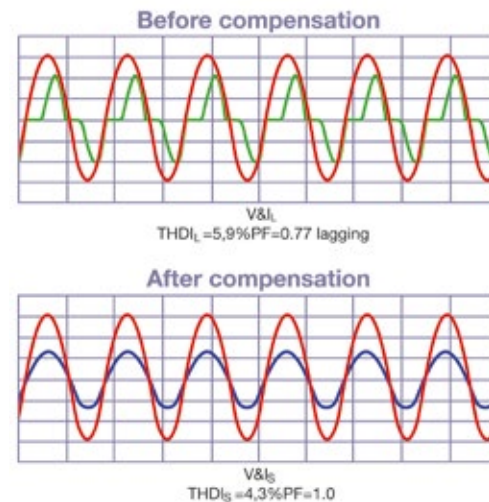
# Lowering consumption by restoring waveform.

## Active harmonic power correction filters

Harmonic oscillations on most power converting equipment and facilities are a frequent cause of power quality problems leading to overheating, failure, malfunction, damage, inaccuracy, interference, increase of operating costs etc. The problem affects a wide range of business sectors with modern production equipment becoming more and more sensitive to these disturbances.

Network optimization with Electromatic Harmonic Filters suppress harmonic pollution from non linear loads and provide compensation of lagging or leading power factor. Furthermore the filters act as virtual damping resistors to prevent possible harmonic resonance.

Advanced control techniques efficiently and reliably respond instantaneously to any dynamic variation due to harmonic loads and supply the appropriate amount of compensation current, thus restoring waveform and lowering consumption at all times.



- Modular design, easy to expand
- Active correction up to 51st harmonic
- Up to 12 individual selected harmonics
- Close/open loop control
- Programmable power factor correction
- Full time DSP control system
- Shunt connection, easy for maintenance
- Flexible up-grading/redundancy
- Parallel operation in different capacity
- Easy friendly control panel

Designed for standard 19" rack mounting or configured for integration in switchboards or wall mounting cabinets, each unit produces insertion losses of less than 3%, offering significant cost savings in energy.

## No-Harm architecture

By incorporating the following main components Electromatic No-Harm Filters provide 3 phase harmonic current compensation:

- Ripple Current Filter Module
- Electromagnetic Contactor Module
- High Frequency Inductor Capacitor Module
- IGBT Power Converter Module
- DC Capacitor Module





# Transmitting large amount of power.

## Medium & high voltage substations

Thanks to decades of practical project experience, Electromatic extends supply of electrical power by added features such as high voltage (HV) and medium voltage (MV) substations. By utilizing know-how and proven technologies, it can summon demanding projects, from problem analysis and solutions proposals to implementation, installation, commissioning, handing over and after sales support.

## Reliable solutions

As a turn-key contractor, Electromatic



offers state-of-the-art Electrical Substations, featuring the most trustworthy HV and MV equipment which support efficiently a trouble free supply of electrical power on all voltage levels. In every situation, innovative solutions and outstanding quality standards attest economical cost, ease of use and trouble free service for both the operator and the life of equipment!

## AIS

High-voltage substations with air insulated switchgear (AIS) offer outstanding reliability, economical operation, low maintenance requirements and safety. Our services stretch from planning, design and engineering to selection of high-voltage devices, switchgear equipment and modernization of existing substations.

## GIS

Gas insulated switchgear (GIS) is perfect for bringing high-voltage power right to the center of urban areas, where space limitations are a major issue. Compact, low on noise and electromagnetic emissions, they are suitable for HV/MV primary or secondary distribution applications. Electromatic provides one-stop GIS substations that contain also all secondary technology, procurement, installation, commissioning and on-site-training.

## HIS

Highly integrated switchgear (HIS) are compact switchgear applications mainly used in the refurbishment and expansion of existing HV and MV substations, particularly in cases when such works need to be carried out while the substation remain in service. They provide the possibility to adapt a substation to today's demands in the shortest time. Thanks to the underlying modular

concept this mixed technology with circuit breakers, disconnectors, grounding switches, and instrument transformers housed in pressure-resistant, gas-tight enclosures, can be assembled in different configurations to suit the needs for any existing and new sub station application. Thanks to the underlying modular concept this mixed technology can be assembled in different configurations to suit the needs for any existing and new sub station application.





“Plug and play” quick installations.

### Veratile and durable Electrocenters

Specific customer requirements may sometimes call for cost effective, permanent or temporary power distribution, control, monitoring and telecommunication applications in remote locations where construction facilities are limited. They may also require mobile substations or even, when time is critical, short notice installation. Electromatic designs and builds prefabricated Electrocenters to the highest engineering standards for an enormous range of applications. Their advantages include:

- Minimum space requirement
  - Lower interface management
  - Minimum on-site civil work
  - Immediate installation
  - Easy expansion
  - Easy relocation
  - Suitable for extreme weather and harsh environments
  - Reduced maintenance requirements
- Featuring a heavy duty steel structure and sandwich panels, sealed and treated against corrosion, they enclose a cocooned operating environment for all valuable equipment within. Such as:
- Medium and Low Voltage Switchboards and Distribution Boards
  - Motor Control Centers
  - Power Management and Monitoring Systems
  - Telecommunication equipment
  - HVAC equipment
  - DC Power and Battery Systems



- Fire extinguishing Systems
  - Alarm Annunciation Systems
  - PLC, DCS, ESD and SCADA Systems
  - Electrical and lighting installation
  - Cooling and heating for extreme environmental conditions
  - Office and communication equipment.
- The Electro-Centers are factory tested and dispatched to their destination ready for immediate installation, connection and operation. They ensure safe and reliable connection to Grid, anywhere, anytime... Truly “plug and play” high and low voltage substations, well available on skids, trailer or semi trailer.





## Alternative energy solutions.

### Photovoltaic green energy

Responding to heightened requirements for solar energy, Electromatic provides package solutions to either residential home owners or commercial and industrial clients. Guided by

its long experience, the design consultation and high levels of service ensure the best possible performance and sound operation on any project, large or small undertaken. Photovoltaic (PV) systems are divided into interconnected and autonomous systems.

#### Grid connected PV systems

Grid interconnected systems convert sun energy to electricity which is transformed by inverters and transmitted to the grid directly via transmission lines in view of commercial exploitation of electricity produced.

#### Off-Grid PV systems

Grid independant photovoltaic systems are not connected to a public power supply grid, being particularly suitable in cases where connection to the grid is not possible or power requirements are low or expected to cover only part of an installation's energy needs. In off grid-mode, photovoltaic modules charge a storage device with direct current in prospect of supplying electricity to the consumers via their own grid. An optional inverter can be used to enable operation of end devices which run on normal

alternating current.

#### Residential and solar systems

Straightforward trouble free installation with packages that include all necessary components such as controllers and deep cycle batteries, providing safe and stable performance.

#### Solar lighting systems

Cost effective solutions applied for street lighting, advertisement boards', parking facilities etc.







▲ Paphos Desalination Plant, Cyprus.



▲ Dekhelia Desalination Plant, Cyprus.



▲ Kemapco Chemical Plant, Aqaba, Jordan.  
◀ Limassol Water Treatment Plant, Cyprus.



▲ The Arab Potash Co Ltd, Safi, Jordan.



▲ Kuwait Oil Co, Kuwait.



▲ Paphos Sewage Treatment Plant, Cyprus.



▲ Vasilikos Power Station, Cyprus.





▲ VTV Fuel Tank Farm, Vasiliko, Cyprus.



▲ Smart City, Malta.

▼ Limassol Port Passenger Terminal, Cyprus.



▲ Guinness Beer Plant Benin, Nigeria.



▲ Larnaca International Airport, Cyprus.



▲ Paphos International Airport, Cyprus.



▼ Limassol Marina Infrastructure Works, Cyprus.



▲ Solid Waste Management Plant Limassol, Cyprus.







▲ Wargaming Headquarters Nicosia, Cyprus. ▼ Nicosia General Hospital Cyprus.



▲ Cisk Beer Plant Malta.



▲ Federal Bank of Middle East Cyprus.



▲ Amiri Diwan, Kuwait.



▲ Mall of Cyprus Nicosia, Cyprus.



▲ Kings Avenue Mall Paphos, Cyprus.



▲ University of Cyprus Nicosia, Cyprus.



