



GAMATRONIC

Our Power, Your Confidence



GAMATRONIC



GAMATRONIC™

Our Power Your Confidence

The World's Leading Provider of Cutting Edge Power Modular Solutions and Technology

GAMATRONIC ELECTRONIC INDUSTRIES LTD.

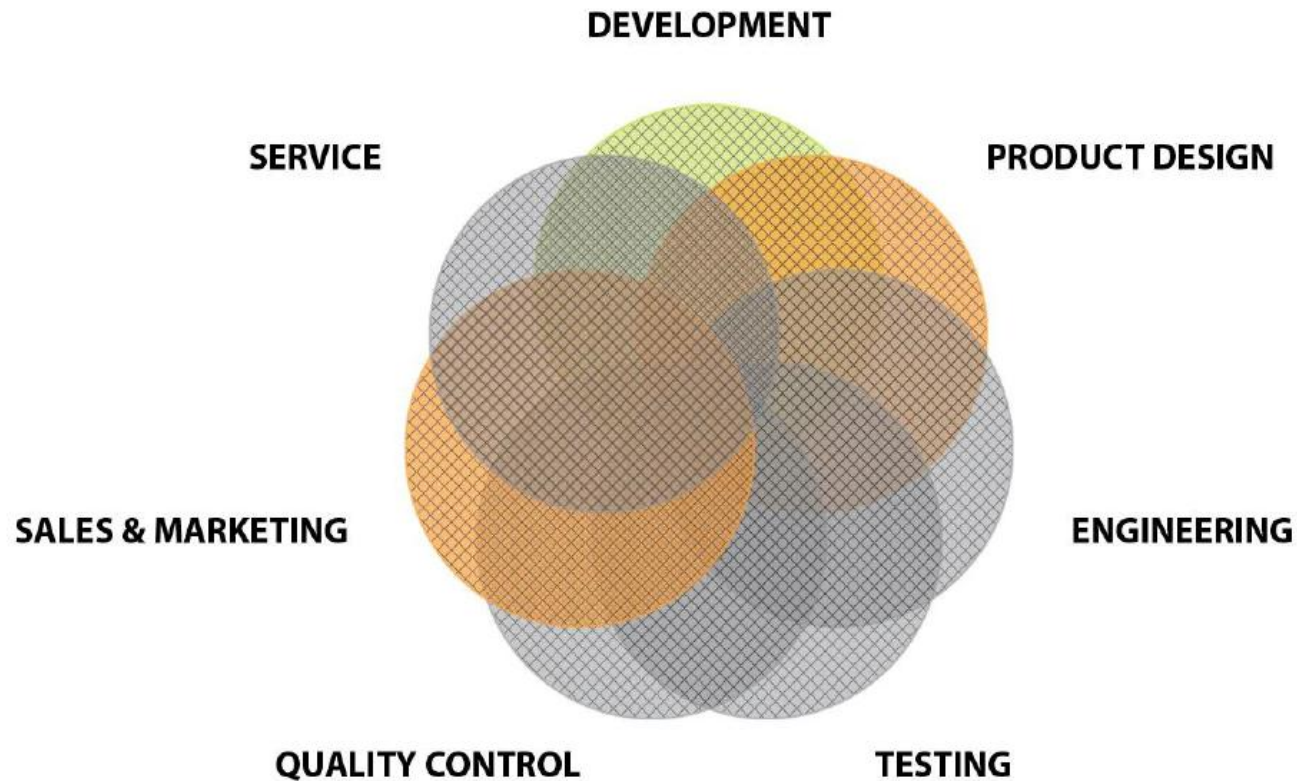
Gamatronic Headquarters a 6,000 square meter facility is located in the Science Based Industries Park in Jerusalem



History

- 1970 – Founded by Mr. Joseph Goren
- 1994 – Became publicly traded on the Tel Aviv Stock Exchange
- 1996 – Began manufacturing modular solutions for Telecom power systems
- 2001 – Established a subsidiary in the UK
- 2003 – Manufacturing was expanded to Modular solutions with the Power+ family of products
- 2004 – Established a rep office in China
- 2006 – Established a rep office in Brazil
- 2008 – North America Market UL listing of the Power+ series
- 2009 – Expanded modular solutions with the new Mega Power+
- 2011 – Mega Family of products was expanded up to 500 kVA
- 2012 – The Mega V2 series was released
- 2013 – The Power + Premium was launched
- 2013 – The Centric family of products was launched

In house Activities



International Awards

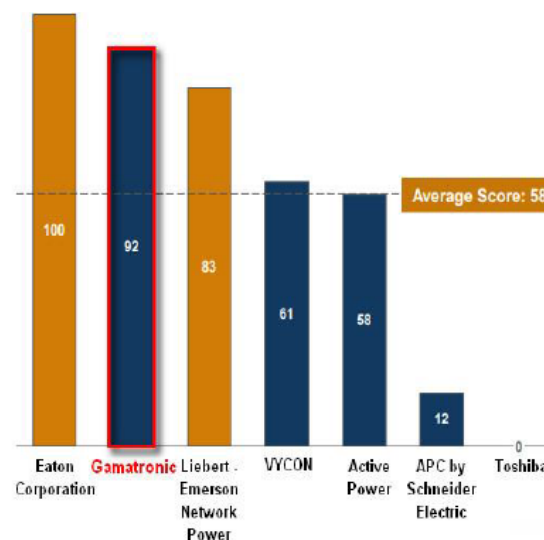
Gamatronic has received multiple awards from various institutes in Israel and worldwide including:

- Industry Leadership award from the Israel Manufacturers Association
- Outstanding Commitment to Quality and Excellence award from the International Quality Crown awards
- Quality & Professionalism award from the Israel National Center
- Ernst & Young awards for best entrepreneur of the year given to Joseph Goren
- And many more ...

Info-Tech 2012 Vendor Landscape Research



- Info-Tech is an INTL leading analysis and consulting firm
- in its 2012 Research Info-Tech Analyzed leading UPS Manufacturers and awarded Gamatronic the title of “emerging player” in the UPS market, Offering the best value for customers’ needs.





GAMATRONIC

Our Power, Your Confidence



WORLD REPRESENTATION

in over 80 countries!



Modular Solutions

- Future growth capability – with minimum additional costs and handling
- Vertical & horizontal redundancy N+1
- Extra small density
- High Reliability due to the modular/redundancy design
- Quick and simple servicing = reduced costs of service & maintenance
- Lower installation costs & smaller footprint
- Electrical savings due to substantial decrease of power consumption

Single Phase Power Solutions



Single Phase:

- **G-NET – Rack/Tower UPS Systems and Battery Banks**
 - 1, 2 & 3 kva 2U UPS Systems.
 - 6 kva & 10 kva 2U Single Phase UPS Systems.
 - Battery Banks 2U for 10 to 15 min battery backup for 1 to 10 kva UPS.

- **STSW – Single Phase Static Switch**
 - 3 kva & 6 kva Single Phase Static Switch
 - 30 kva 3U Single Phase Static Switch
 - Optional PSM-STSW management software

- **Universal UPS Systems (1:1/3:1/3:3)**
 - Power+ 19" Rack Mount 10 & 20 kva UPS systems



Three Phase Power Solutions



➤ Three Phase Modular UPS Systems

- Centric 25 to 200 kva - Scalable Hot Swap Modular UPS
 - Available in three Cabinets – 50 kva, 100 kva & 200 kva
 - Consisting of 25 kva/kw modules
 - Advance LCD touch screen display
- Power Plus Premium – 10 to 100 kva Unity Power UPS
 - Consisting of 10 kva/kw modules
 - Advanced colourful LCD touch screen display
- Power Plus Classic – 10 to 100 kva 0.8 pf UPS
- Power Plus RM – 10 to 100 kva UPS in lockable Rack
- Power Plus FS – 10 to 100 kva sub-rack for 19" server rack.



P+ Classic



P+ RM



P+ FS

Centric 50 to 200 kVA UPS

The New Centric is an innovative modular UPS available in 7 models (50, 75, 100, 125, 150, 175 & 200kVA/kW).

The Centric provides premium double conversion back up power that is both reliable and clean at an attractive price.

Features:

- Advanced colorful LCD touch screen
- True on-line battery
- Up to 96% efficiency
- High Power output & small footprint
- Light weight

Additional features available:

- Manual Maintenance bypass switch
- Email notification of system alarms
- Modbus/RS232/RS485 communication protocols
- Automatic, orderly shutdown of connected computers during power blackout



Power+ Series

Power+ is an electrically and mechanically modular 10-100kVA UPS system, uniquely designed to grow flexibly as power requirements grow. Easily upgradable on-site through addition of plug-and-play 10kVA modules

Power+ is a parallel redundant UPS. The system comprises 1 to 10 modules of 10kVA each, a system controller, static switch module, and a distribution block.

Power+ offers the optimal combination of efficiency, economy, and usability – and boasts the industry lowest TCO (Total Cost of Ownership) and fastest ROI (Return on Investment).

The flexible system is user upgradable from 10kVA to 100kVA (or 50Kva with a suitable base).

Modules are designed for hot insertion, hot swapp. The battery bank is common to all the modules and can be built as one or more branches, for battery redundancy. The Power+ controller has an internal communication card, which in conjunction with Gamatronic PSM software enables remote management of the unit, including real-time monitoring and operational control.

Parallel option only available for 60kVA & higher (on 100kVA model)



Power+ Premium 60

Power+ Premium 60 is a 15 to 60 kVA/kW modular UPS system with a proven design. Easily upgradable on-site through addition of plug-and-play 15 kVA modules. Power+ Premium 60 is a parallel redundant UPS

Power+ Premium 60

- 15kVA/kW Power Modules
- Advanced Static Switch
- State of the art Controller
- Available in stand alone or rack mount configuration

Power+ Series

Power+ Premium 10-100kVA UPS

The New Power+ Premium, is an innovative upgraded modular 10 – 100kVA UPS system uniquely designed to flexibly grow along with power requirement needs. Power Plus Premium is a unity power factor UPS offering 25% more power than Power+ UPS.

Power+ Classic 10-(50)-100kVA UPS

Power+ Classic is an electrically and mechanically modular 10-100kVA UPS system, each unit consists of 10 kVA/8kW modules.

Power+ Rack Mount UPS 10-(50)-100kVA

Power+ Rack Mount UPS is a complete, end to end 19" 10-100kVA or 10-50kVA rack mount solution.

Power+ FS UPS 10-(50)-100kVA

Power+ FS is a modular UPS sub rack, available in 50 kva and 100 kva configuration, which can be installed into a 19" Server Rack.



Power+ Series

Power+ 19" Rack Mount UPS 10kVA – 20kVA

Online double-conversion modular UPS Uninterruptible Power Supply – for a 19" rack 10kVA-20kVA. This is a 19" variant of the Power+ UPS which can be inserted in any standard 19" rack, for a lower cost configuration of the 10kVA and 20kVA UPS systems. It is available in two configurations, with one or two Power+ modules.



Power+ SA 10kVA UPS

Stand-alone ON-LINE double-conversion UPS . This is a stand-alone 10kVA version of the Power+ UPS in a unique light and compact design, weighing only 18 Kg. This universal UPS is available as 3/3, 3/1 and 1/1.



Power+ SA UPS 20kVA – 40kVA

Power+ SA 20/30/40kVA is one of the most sophisticated Stand-alone ON-LINE double-conversion UPS available in the marketplace today.



Three Phase STSW & OVP



➤ STSW Three Phase Static Switch

- 10 kva to 150 kva three phase Static Switch

➤ OVP – Over Voltage Protection Unit

- OVP is an electronic unit that protects critical loads from damage caused by common types of electrical problems:
- Very short term voltage increases (spikes) such as from lightning and switching surges (microseconds in duration).
- Short-term voltage increases (1-30 milliseconds duration).
- Longer term voltage increases and voltage drops (more than 30 ms).
- Loose neutral conductor that can damage critical load.

Not all of your equipment may require the backup power provided by a UPS, but you still want to protect those loads from the damage caused by these common occurrences.

Customized Solutions

Gamatronic develops customized solutions for a large range of clients and applications. Gamatronic is guided by flexibility and customer service.

Among it's solutions:

- Frequency Converter for Navy applications
- UPS for powering navy control equipment
- UPS for marine use
- UPS for IDF – military standard
- Outdoor stabilizer
- Medical μ PS 10kVA

Customized Solutions for Military & Marine



➤ Military Naval UPS System 20 kVA

- This military UPS is a redundant 20kVA UPS system.
- The system is designed for military and naval applications, therefore complies with strict standards and has a special strengthened 19" enclosure.
- The UPS modules are designed for hot swapp.

➤ 19" Military UPS 1.5 kVA

- A specially adapted model of the MP110 UPS for the IDF.
- This military UPS unit complies with strict military standards.



➤ Marine Double-Conversion UPS – 1kVA, 2kVA, 4kVA & 6kVA

- This non-standard marine UPS system was designed for marine dynamic positioning and vessel control systems according to special engineering and mechanical requirements.
- All system elements (rectifier/charger, inverter, STSW, batteries) are installed as independent modules in a closed and protected 19" 16U cabinet with a front door.



➤ Parallel Naval UPS 3/3, 30kVA

- These Parallel Naval frequency converters UPS systems (440Vac/60Hz to 115Vac/400Hz) were designed especially for marine use.
- The frequency converters can be supplied in other capacities, with or without batteries, with standard and military compliance.



Satisfied Customers

Alticom Case Study



Alticom BV is a Dutch company that owns 33 transmission masts in The Netherlands. Alticom purchased Gamatron Power+ RM systems with matching battery cabinets in order to equip their full solution data center rooms.

Customer Profile

Alticom rents out space in their 33 transmission masts for antennas to Telecommunication network operators and rooms within the constructions for the associated equipment and as colocation/data center.

The Challenge

Alticom rents out entire floors in the towers to Telecom companies. Some choose to bring all the equipment (including the UPS) while others request full solutions from Alticom.

The solution

Alticom decided to provide their full solution rooms with P+ RM100 KVA and RM Battery cabinets 2 M44 21 Ah.

At the end of the process 33 transmission masts will be equipped with the Gamatron Power+ RM-100KVA with Matching RM-Battery-Cabinet.

The improved PUE (power efficiency) of these rooms is better than 1.3, thanks to the efficient cooling and UPS performance.

Power+ RM

Power+RM is a complete, and to end 10'10-100kVA rack-mount solution.

- Double conversion power provides complete, consistent and clean AC output to the data center power bus.
- The power+ operates at a super high efficiency of 98%, resulting in less heat and lower cooling costs.
- True online battery is galvanically connected to the rectifier and inverter on a common AC link for increased reliability.
- Hot plug, hot swap system, enables modules and controller replaced or added without interrupting the output power or transferring to bypass.
- Compact, lightweight power modules are only 2 U and 19 inch.
- High density architecture as well as scalability it relative to system & modern cabinets, integrating seamlessly with existing data center design. Alternatively, Power+ RM components can be easily housed in existing racks.
- The Gamatron Power+ UPS system employs a single unit form factor that conserves precious data center floor space. The product's lightweight, user friendly, 10 kVA modules provide a simple, reliable, low cost expansion to meet growing power needs. Because the Power+ is modular and scalable, conservation of capital is achieved by investing only when capacity is needed.
- Scalability from 10kVA to 100kW enables UPS to grow in 10kW steps with expanding needs.
- Cost effective N+1 redundancy, ensures that the load will continue to be supported even if a module fails.
- Highest AC to AC efficiency rating of 98% results in lower energy costs and reduced heat.
- System controller provides advanced management and control functions, including Internet, Telnet and SNMP communications standard. UPS operation is independent of controller function.
- UPS battery and maintenance bypass switch are mounted in 10' or 42U racks for easy installation.

ALTICOM NETHERLANDS CASE STUDY

Customer Profile

Alticom BV is a Dutch company that own 33 transmission masts in the Netherlands Alticom rents out space in their 33 transmission masts for antennas to Telecommunication network operators and room within the constructions for the associated equipment.

The Challenge

Alticom rents out the space, the companies renting it choose to either bring their equipment or request a full solution from Alticom.

The Solution

Alticom purchased Gamatron Power+RM 100 kVA systems with matching battery cabinets in order to equip their full solution data center rooms. At the end of the process 33 transmission masts will be equipped with the Gamatron Power+ RM and matching battery cabinets. The Gamatron systems substantially contribute to the improved PUE (power efficiency) of the data center rooms.



GAMATRONIC

Our Power, Your Confidence

Satisfied Customer



High-Speed Rail in China - Case Study



Customer Profile

High-speed rail refers to any commercial train service in China with an average speed of 200 km/h (124 mph) or higher. China has the world's longest high-speed rail (HSR) network. BBC reported that by 2014, China was expected to have more high-speed railway track than the rest of the world combined.

China's high-speed rail network consists of upgraded conventional railways, newly built high-speed passenger designated lines (PDUs), and the world's first high-speed commercial magnetic levitation (maglev) line.

China is the first and only country to have commercial train service on conventional rail lines that can reach 350 km/h (217 mph).

Brief

The information service platform program of Shitai, Wenzhou, Fuzhou, Yongtai, Wenzhou, Zhengzhou and Wuzhou together as passenger dedicated lines was approved to be built through State R&D Commission. The Service Platform of passenger dedicated lines includes Ticket Systems, Passenger Service Information Systems, Office Automation Systems, IC Card Management Systems, Freight Management Systems and other information systems. Among that, Wenzhou Line includes 10 passenger stations, 8 out of them deal with freight management system as well. There can be 400 to 2,000 people gathered at the station, therefore ensuring the whole service system operates smoothly, and reliably running on stable power.

The Challenge

The information platform of Railway Passenger Dedicated Line covers a wide range and a large area span. The information system includes all aspects that are closely linked with passenger transport. Therefore, three points were requested for UPS systems. First, the reliability of the system should be high enough to ensure the security of power supply and standard operation of information system. Second, along with the growth in business and load, UPS should be easily scalable; at last, supplier should not only provide reliable products but also emergency service with quick fault solution.

The solution

8 sets of Power+ UPS systems (5 sets of Power+ 30kVA, 1 set of Power+ 40kVA and 1 set of Power+ 50kVA) have been first adopted in Fujian section Program of Wenzhou line.

The high reliability of the Power+ System has ensured standard operation of railway passenger dedicated lines; while, its scalability has resolved the challenge.

The Power+ answered all the client's needs with its modularity, scalability and redundancy. The challenge of emergency servicing is facilitated by the light weight of the module (85 kg) - the lightest in the market, enabling the engineer to respond swiftly and efficiently.

HIGH SPEED RAIL IN CHINA CASE STUDY

Customer Profile

China with the world's longest high speed rail network is the first and only country that has a commercial train service on conventional rail lines reaching up to 350 km/h.

The Challenge

The information platform of the railway passenger dedicated lines includes all aspects that are closely connected with passenger transport. The UPS system was requested to supply: reliability, high enough to ensure the security of power supply and standard operation of the information system. Scalability and emergency service with quick fault solution.

The Solution

8 sets of Power+ systems ranging from 30 to 50 kVA were adopted at the first stages of the project. The Power+ answered all the customers' needs with modularity, scalability and redundancy. The challenge of emergency service was solved with the light weight of the modules (lightest in the market) enabling swift and easy response.

Satisfied Customers



Telecommunication Case Study



Customer Profile

One of the biggest Telecommunication companies in the Philippines. Has huge data recovery centers in various locations in the Philippines. The company's main business is mobile phone operation. Aside from basic services, its mobile telephony offers SMS messaging, international roaming capability and other value added services through GSM technology and fixed-line services using an advanced digital network.

The Challenge

The UPS power system upgrade of their data center included the replacement of their old conventional UPS (200kVA in parallel) with a UPS that is reliable, efficient, easy to service and with a small footprint. The customer requested a UPS that would supply the load 24/7 without downtime even during repair or scheduled maintenance.

The solution

The company purchased 2 x 4 x 100 kVA Gamatronic Power+ Classic due to the following advantages:

- Hot swapping technology allowing the modules' replacement without turning the UPS to bypass mode during maintenance.
- Horizontal and vertical redundancy. While the old system provided horizontal redundancy alone.
- Due to high efficiency and low heat dissipation electricity consumption was reduced and the number of air conditioning units turned on was reduced as well.
- The Power+ Classic UPS was chosen because each 100kVA module provides minimal initial investment and scalability options for the future.

Power+ Classic 10-100kVA

Power+ Classic is an electrically and mechanically modular 10-100kVA UPS system, uniquely designed to flexibly grow as power requirements grow. The product can easily be upgraded on-site through addition of plug-and-play 10kVA modules up to 100kVA (the system is designed for hot swap).

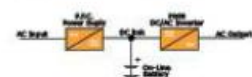
Power+ offers the optimal combination of efficiency, economy, and reliability – boasting the industry's lowest TCO (Total Cost of Ownership) and fastest ROI (Return on Investment).

Power+ is a parallel redundant UPS. The system comprises of 1 to 10 UPS (or 1-10) - modules of 10kVA each, a system controller, static switch module, and distribution block.

The battery bank is common to all the modules and can be built as one or more branches, for battery redundancy.

The Power+ controller has an internal communication PCB, which in conjunction with Gamatronic PSM software enables remote management of the unit, including real-time monitoring and operational control.

- Parallel option available for 80kVA & higher (on 100kVA module).
- Power+ Classic is available in a 30kVA or 100kVA Static Switch, or 100kVA Static Switch Parallel version.



TELECOMMUNICATION CASE STUDY

Customer Profile

One of the biggest Telecommunication companies in the Philippines, with huge data recovery centers in various locations. The company's main business is mobile phone operation. Aside from basic services, its mobile telephony offers SMS messaging, international roaming capabilities and other value added services through GSM technology and fixed-line services using an advanced digital network.

The Challenge

The company decided to upgrade their data center UPS power system. The customer requested a system that would supply the load 24/7 without downtime, even during repair or scheduled maintenance.

The Solution

A purchase of 2x4x100 kVA Power+ classic was chosen because of the following advantages: hot swap technologing, horizontal and vertical redundancy, high efficiency and low heat dissipation, allowing for reduction of electricity consumption and minimal initial investment and scalability because of the modular stucture.



GAMATRONIC

Our Power, Your Confidence



Thank You!