



POWER+

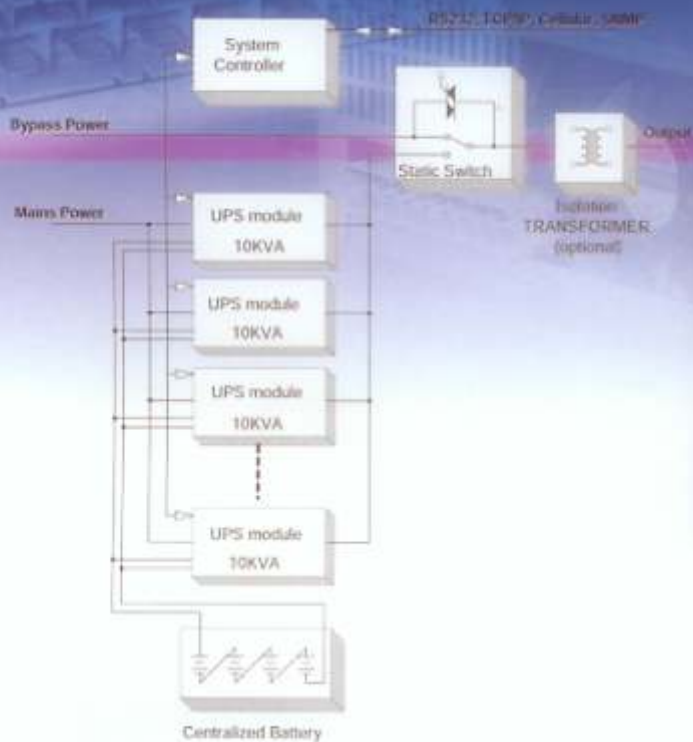
10kVA to 100kVA



Next Generation UPS

Parallel Redundant UPS System
For Modularity and Upgrade

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Ador Powertron Ltd., a part of the renowned, 55 year old prestigious '**ADOR**' group is a complete solution provider in design, manufacturing and commissioning of complex and customized power electronic equipment for various Industries. **Ador** has well deserved approval from renowned Indian and International customers / consultants and features on the approved vendor list of a number of multinationals. Today, **Ador** is the most reliable sourcing hub for renowned multinationals from across the globe with strategic technology alliances with global leaders in specific sectors of Industrial Electronics.

Ador, in technology association with a world leader in Power Electronics, **Gamatronic Electronic Industries Ltd., Israel** having over 35 years of experience brought high-end PURE POWER UPS solutions with futuristic technologies, new applications and new ideas representing international market trends, for the benefit of Indian customers.

POWER⁺ is a modular UPS Systems based on True Online-Battery Topology, upgraded form 10kVA - 100kVA at any time without interrupting the load with maximum safety without transferring the load and there is no Master or Slave.

Ador - Gamatronic **POWER⁺** UPS is the next generation model especially designed with unmatched reliability, pure power quality and very high electrical efficiency for critical enterprise networking application, Data Processing Machine, Internet servers, VSAT communication Network & switching equipment, Networks, Process Control, Telecommunication, Life saving medical applications and such other application where systems availability cannot be comprised at all.

Modular UPS System- Hot Swap Plug-In Module

The **POWER⁺** is a breakthrough concept in UPS technology and marks the beginning of a new generation of UPS.

- ▶ Redundancy
- ▶ Flexibility & expansion option
- ▶ Incredible power density (volume per capacity)
- ▶ Management and communications options
- ▶ User and environment friendly system
- ▶ Smaller footprint
- ▶ Lower heat Dissipation

All this and more in one UPS system - the **POWER⁺**



Our UPS Grows With Your Business



► Parallel Redundant Structure

POWER* is a parallel redundant UPS. The system comprises from 1 to 10 UPS modules each of 10kVA, a system controller, centralized static switch module and distribution block. It can be configured as a 3/3, 3/1 or a 1/1 system.

In short safer load!

► Flexibility and Modularity

POWER* gives you maximum flexibility - it can be extended as the load increases, by simply sliding in more modules.

POWER* is truly modular - Upgradeable from 1 to 10 modules, each of 10kVA, allowing you to assemble a UPS system of up to 100kVA!

► True On-Line Battery VFI

POWER* is designed according to IEC-62040-3 standard: "The Inverter always supplies the power to the load and it takes its power from either the a.c. input via the rectifier or from the battery. The rectifier has to be controlled so as to recharge and maintain the battery in a charged condition".

In other words, the battery is connected between rectifier output and inverter input on common DC link.

► Green Power System

POWER* is based on green power technology. The system has a unity input power factor (0.99) and a very low input THD.

It operates in Continuous Current Mode (CCM), reducing line interferences (RFI / EMI).

In short clean environment!

► Active Current Sharing

The system has active current sharing at the input / output and battery.

In short higher reliability!

► High Efficiency

POWER* has an output efficiency of up to 96%, and 98% efficiency during back up mode.

In short savings on electricity bills!

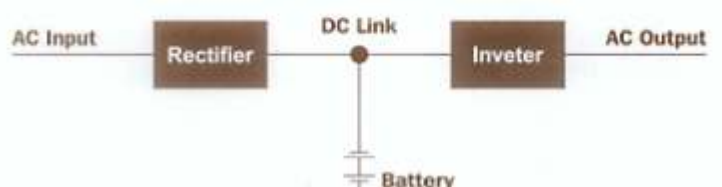
► Light & Compact

Only 9Kg per module!

POWER* light weight and small dimensions allow for easy maintenance, reduced shipping costs and smaller foot print.

Double Conversion True On-Line Battery (VFI)

According to IEC 62040-3



Technical Specifications

Topology	True Online Battery, Double Conversion VFI
Construction	Modular Parallel Hot-Plugged Module, Continuous Operation

INPUT

Voltage	3 X 400V + N
Voltage Range	-27% and + 20%
Current	15A per for a single module, no inrush current at startup
Frequency	47 - 63 Hz
Power Factor	0.99
THDI	5%

OUTPUT

Rated Power	10kVA/8kW to 100kVA/80kW
Frequency Tracking Range	±1, ±2, ±3Hz (selectable)
Frequency (in free-running mode)	50/60Hz ± 0.1%
Slew Rate	1Hz/sec
Voltage	3 X 400+N
Static Regulation	±1%
Regulation for Unbalanced Load	1% for 100% Unbalance load
Dynamic Response to 100% Load Step	±2%
Overload	110% for 10 min.; 125% for 60 sec.; 1000% for 1 cycle
Waveform	Sinusoidal
THD	Less than 2% for linear load
Load CF (max)	6:1
AC-AC Efficiency (nominal)	Up to 96%
DC-AC Efficiency (nominal)	Up to 98%

BATTERIES

DC-Link Voltage	±340 to 425V
No. of Batteries	64 X 12V

GENERAL

Maximum Power dissipation (Po=8kw)	333W (1136 BTU) for a single module
Ambient Temperature	-10°C to + 40°C (operating) -20°C to +60°C (storage)
Relative Humidity	95% max non-condensing
Altitude	1500m w/o derating
Enclosure	IP20
Cooling	Forced - Multi - Fan with speed control

STANDARDS

EMC Emission	EN50091-2 Class A; IEC 62040-2
EMC Immunity	EN50082-2
Safety	E50091-1; IEC 62040-1-1
Design	EN50091-3; IEC 62040-3
Low Magnetic Field Radiation	EMF as per ICNIRP

DIMENSION

10kVA Module (H X W X D)	88mm (2U) X 483 (19") X 455mm
Weight	9Kg

POWER* System (incl STSW and STSW and base modules)

Model	10kVA	20kVA	30kVA	40kVA	50kVA	60kVA	70kVA	80kVA	90kVA	100kVA
Dimensions (mm) H	710	800	900	990	1080	1180	1270	1360	1460	1550
W						598				
D						673				
Weight (Kg)	84	99	114	129	144	159	174	189	204	219

ACOUSTIC NOISE (@1.5m from front of unit)

Noise (dBA)Half load	48	52	53	54	55	55.8	56.4	57	57.5	58
Noise (dBA)Full load	51	54	55	57	58	58.8	59.4	60	60.5	61

* All specifications are subject to change without prior notice

Control & Management

POWER⁺ Controller

The **POWER⁺** sophisticated controller includes a unique true power analyzer, yet it does not become a "single point of failure".

Allows variety of communication options, like TCP / IP, wireless cellular communication. It has a bilingual LCD - English & Spanish.



Power⁺ Management screen on a Cellular phone

Management Application

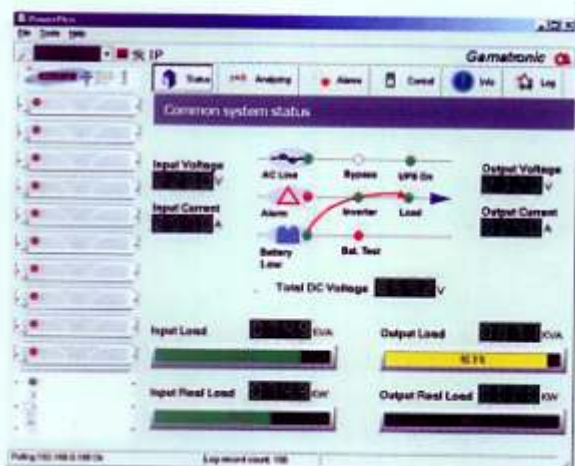
POWER⁺ Controller has an internal communication card-GmaCI-and can be managed by Ethernet software. Gamatronic's **PSM-POWER⁺** UPS management software enables monitoring and controlling of the **POWER⁺** as well as automatic computer shutdown. The user-friendly GUI provides real-time monitoring which permits detailed operational control.

POWER⁺ can also be managed via wireless cellular communication, the **WING**. By connecting a **WING** card to the UPS, text messages regarding the UPS status and alarms can be sent to any cellular phone or PC with a wireless modem. The **WING** allows communications to and from the **POWER⁺**. It enables the activation of the UPS in realtime, for example: turn on/off a module, battery test, LVD open/close, and more.



POWER⁺ Controller

Micro controller core	16 bit
Display	4X40 Characters LCD with backlight
Other indications	8 LED's, buzzer
Analog input channels	4
Digital input channels	8
Real Time Clock (RTC)	With backup
Volt-Free outputs (dry contacts)	6
RS232 User Port	Isolated
Communication	TCP/IP; GPRS/SMS; Wireless cellular (optional)
Communications with system modules	Serial, isolated
Events Log	255 events
System operation without controller	Continuous without disruption
On-Screen Parameters	Load Bar-Graph; 3-phase Voltage; 3-phase Current; Battery Voltage; Status of each UPS module; Static-Switch parameters and status; Battery Sensor Temperature
Language	English & Spanish
Power Meter	Input & Output KW, KVA, PF
Alarms	AC abnormal; DC abnormal; UPS module(s) failure; Load on By pass; Battery test failed; Overload; Over/Under temperature
Dimensions (H x W x D) (mm)	88 (2U) x 483 (19") x 455



POWER+ SA

10KVA Stand Alone
On-Line Double Conversion UPS
True on line batteries

- ▶ Flexible use - available in 3/3, 3/1 and 1/1.
- ▶ Unique light and compact design - only 18Kg electronic cabinet!
- ▶ Great performance:
 - High efficiency AC/AC 96%
 - Low input THDi 5%
 - Input PF 1
 - LCD with back light



POWER+ 19"

POWER+ 19" allows you house the excellent module, controller and STSW in any 19" rack you want.

This solution allows you a lower cost solution for 10kVA and 20kVA UPSs in 19" rack .

The kit includes 10KVa Power+ module, controller with STSW and a 19" shelf to house the above

Dimensions:

- Height : 4U for 10kVA; 6U for 20kVA
- Width : 19"
- Depth : 580mm (including plug-in connectors in rear side of shelves)

Options:

1. The system can be used for 3/3, 3/1, 1/1
2. Upgrade to 2X10kVA. total system will be 6U in this case.



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