

For those who never want that
3 A.M. PHONE CALL.



www.powervar.com

North America:
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Unit 5, Birch-Kembrey Park
Swindon, Wilts SN2 8UU UK
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Power protection & power reliability
for your mission-**critical** applications.



Keeping power on, keeping power clean.

Security Plus® UPS from POWERVAR®

You're rightfully proud of your operation and its record for reliability and productivity. Everything's going along as planned until . . . an interruption of your system's utility power. Data transmission stops. Procedures are interrupted. Transactions stop in their tracks. Equipment comes to a standstill.

It's downtime—caused by an interruption of electrical power, and there goes your record of continuous productivity.

Or there may not be a sudden interruption of power, but gradually through invisible electrical interference, performance of your computer systems or other equipment begins to deteriorate noticeably—taking its toll on system reliability.

Whichever way it happens, there may be a 3 a.m. phone call in your future . . . resulting from loss of power—or lack of continuous clean power—to your critical equipment and online computer systems.

However or whenever the bad news comes, it could have been prevented by protecting your equipment with a Security Plus® UPS from POWERVAR®.

Security Plus UPS solutions from POWERVAR

provide a firm foundation for your risk management program by:

- ENSURING POWER QUALITY
- PREVENTING POWER OUTAGES
- PROMOTING ENERGY EFFICIENCY
- IMPROVING SYSTEMS RELIABILITY
- ALL WHILE REDUCING COSTS

Security Plus® UPS from POWERVAR®

Eleven new choices in power quality protection . . . from 2 kVA to 15 kVA

Oversizing a power protection system can result in higher costs to buy, install and operate. With the Security Plus® UPS from POWERVAR®, you don't have to oversize. Security Plus is built to handle modern computer loads—systems with high crest factors and high current inrush peripherals. So Security Plus can be sized to match the load, saving you money on your power protection equipment investment.

You can get the precise power quality solution for your equipment, whether it's a point-of-sale system, a scientific instrument, a telecommunications switch or a cabinet full of process controls. We offer power quality solutions tailored to meet the specific needs of retail, healthcare and industrial applications.

More key reasons for you to choose Security Plus:

- **Security Plus** is a true **Online Double-Conversion Sinewave UPS**. With this kind of topology, the protected load is completely isolated from utility power. The inverter constantly converts AC to DC, then back to AC, and utility power is constantly being filtered and surge protected (in the normal mode or hot to neutral), constantly voltage regulated, and constant frequency regulated. Because Security Plus is an online UPS, there's no break or lag in power to the load when utility power is lost (as could the case with a standby design).
- **Internal Isolation Transformer**—eliminates common mode (neutral to ground) voltage disturbances that cause "no trouble found" service calls, lock-ups and system reliability problems. This is an area of protection often overlooked in the design of other online UPS equipment!
- **High-Input Power Factor**—Security Plus UPS does not add load to your facility's electrical system. And it doesn't create problems for the building in terms of reduced facility power factor or other power anomalies.
- **Low-Input Current Harmonic Distortion (THDi)**—Less than 5% even when powering nonlinear loads, resulting in maximum transfer of power between the power source and protected load while minimizing the contribution of harmonic currents to the facility electrical system.
- **Wide-Input Voltage Window**—When utility voltage becomes too high or too low, Security Plus provides normal power to the load it supports without the need of going to the battery for backup power as quickly as other UPS products. Consequently, drawing on battery reserves is needed less often and for shorter periods, thus extending battery life.
- **100% Generator Compatibility**—Security Plus is designed to operate in tandem with generator backup. You have the same level of power protection and power quality from generator power as from utility power.
- **Hot Swappable Battery Packs**—Enables the batteries to be replaced without taking the UPS out of service or interrupting power to the load. And the External Battery Connector provides easy connection of add-on battery cabinets for extended-run operation.

POWERVAR®: Pedigree for power quality

Unlike many other suppliers of power protection products . . . providing clean, reliable power is POWERVAR's sole focus, and has been since our founding in 1986.

Thanks to this singular mission, POWERVAR has been able to develop a full line of power protection equipment with unmatched reliability and quality that's the gold standard of the industry. POWERVAR offers an in-depth product portfolio of real solutions and real protection for the technology your business relies on to keep your operation running smoothly.

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Technical Specifications

	ABCDEF2000-11	ABCDEF3000-11	ABCDEF2000-22	ABCDEF3000-22	ABCDEF4000-22	ABCDEF5200-22	ABCDEF6000-22	ABCDEF8000-22	ABCDEF10.0-22	ABCDEF12.0-22	ABCDEF15.0-22			
Capacity	2.0 kVA/1.8 kW	3.0 kVA/2.7 kW	2.0 kVA/1.8 kW	3.0 kVA/2.7 kW	4.0 kVA/3.6 kW	5.2 kVA/4.6 kW	6.0 kVA/5.4 kW	8 kVA/7.2 kW	10 kVA/9.0kW	12 kVA/10.8 kW	15 kVA/13.5 kW			
Topology	True On-Line, Double Conversion, IGBT Inverter with Power Factor Corrected Input and Low Impedance Output Isolation Transformer					True On-Line, Double Conversion, IGBT Inverter with Power Factor Corrected Input and Low Impedance Output Isolation Transformer								
INPUT SPECIFICATIONS														
Input Voltage	100/115/120	100/115/120	200/208/220/230/240			200/208/220/230/240								
Input Frequency	50/60 Hz					50/60 Hz								
Input Power Factor	>0.95					>0.95								
Input Current THDi	<5.0%					<5.0%								
AC Input Breaker Required	35A min	45A min	20A min	25A min	35A min	40A min	45A min	60A min	80A min	90A min	110A min			
OUTPUT SPECIFICATIONS														
Output Voltage	100/115/120	100/115/120	120/208/240 for 208 or 240 volt input - Input voltage equals output voltage when UPS is powered at 200,220, and 230 volts			120/208/240 for 208 or 240 volt input - Input voltage equals output voltage when UPS is powered at 200,220, and 230 volts								
Output Voltage Regulation	± 3.0%					± 3.0%								
Output Voltage THD	< 3.0%					< 3.0%								
Rated Output Current* (amps @ each output voltage)	20/17.4/16.7	30/26.1/25	4.2/9.6/8.3 (120/208/240) 10/9.1/8.7 (200/220/230)	6.3/14.4/12.5 (120/208/240) 15/13.6/13 (200/220/230)	8.3/19.2/16.7 (120/208/240) 20/18.2/17.4 (200/220/230)	10.85/25/21.7 (120/208/240) 26/23.6/22.6 (200/220/230)	12.5/28.8/25 (120/208/240) 30/27.3/26.1 (200/220/230)	16.65/38.5/33.3 (120/208/240) 40.0/36.4/34.8 (200/220/230)	20.85/48.1/41.7 (120/208/240) 50/45.5/43.5 (200/220/230)	25.5/57.7/50.0 (120/208/240) 60.0/54.6/52.2 (200/220/230)	31.25/72.1/62.5 (120/208/240) 75.0/68.2/65.2 (200/220/230)			
Overload Capacity	125% for 2 minutes, 150% for 30 seconds, 300% for 500 msec.					125% for 2 minutes, 150% for 30 seconds, 300% for 500 msec.								
Crest Factor	3:1					3:1								
Rated Load Power Factor	0.9					0.9								
Output Frequency	50/60 Hz					50/60 Hz								
Output Frequency Regulation	± .1 Hz					± .1 Hz								
Efficiency	> 85% AC-AC					> 85% AC-AC								
Heat Generation (BTU/HR)	1084	1626	1084	1626	3252	2819.56	3252	4239	4239	5069	6334			
BATTERY SPECIFICATIONS														
Battery Type	12V, 34W Flame Retardant, High Rate Sealed Lead Acid													
Battery Qty.	8	16	8	16	16	12V, 34W Flame Retardant, High Rate Sealed Lead Acid			12V, 51W Flame Retardant, High Rate, Sealed Lead Acid					
Battery Pack Quantity	2	4	2	4	4	16	16	24	24	24	24			
DC Link Voltage	96.0					96.0	96.0	288	288	288	288			
Backup Time	> 8.0 minutes	> 8.0 minutes	> 8.0 minutes	> 8.0 minutes	> 8.0 minutes	> 6.0 minutes	> 6.0 minutes	> 5.0 minutes	> 5.0 minutes	> 5.0 minutes	> 5.0 minutes			
Recharge Time (to 80% capacity)	6 hours	7 hours	7 hours	7 hours	7 hours	8 hours	7 hours	8 hours	8 hours	8 hours	8 hours			
Hot Swappable From Front	Yes					Yes								
MECHANICAL														
Enclosure Construction	Powder Coated Metal													
Physical Dimensions in In. (mm)	28.9" H x 11.8" W x 31.91"D (734mm H x 299.72mm W x 810.5mm D)					28.9" H x 11.8" W x 31.91"D (735mm H x 299.72mm W x 810.5mm D)			33.46" H x 13.77" W x 38.61"D (850.0mm H x 349.76mm W x 980.61 mm D)			42.53" H x 15.75" W x 44.39"D (1080.2mm H x 400.0mm W x 1127.54 mm D)		
Shipping Weight	310 lbs (139 kg)	389 lbs (175 kg)	316 lbs (142 kg)	395 lbs (178 kg)	412 lbs (185 kg)	443 lbs (200 kg)	443 lbs (211 kg)	641.5 lbs (291 kg)	641.5 lbs (291.0 kg)	807 lbs (366 kg)	827 lbs (375.1 kg)			
PERFORMANCE TO ANSI/IEEE C62.41														
Normal Mode Let-Through	< 10Vpk					< 10Vpk								
Common Mode Let-Through	< 0.5Vpk					< 0.5Vpk								
Withstand Capability	Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). Cat. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay					Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). Cat. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay								
OPTIONS														
External Extended Battery Cabinet	Yes					Yes								
Line Cord and Receptacle Panel	Yes - Consult Factory					Yes - Consult Factory								
Internal SNMP Adapter	Yes					Yes								
WARRANTY	3 years electronics (2 years battery)					3 years electronics (2 years battery)								
CERTIFICATIONS														
RoHS	All Models RoHS Compliant													
EMC	FCC Part 15J Class A; EN 55022 Class A/ CISPR 22; EN 50091-2; IEC 61000-3-2													
Safety	UL1778; CSA22.2 No.107.1; IEC62040, w/CB report and cert; IEC62040, w/CB report and cert; IEC61000-4-2, Electrostatic Discharge; IEC61000-4-3, Radiated Electromagnetic Field Immunity; IEC61000-4-4, Electrical Fast Transient/ Burst Immunity; IEC61000-4-5, Surge Immunity; IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances; IEC61000-4-8, Power Frequency Magnetic Field Immunity; IEC61000-4-11, Voltage Dips, Short Interruptions, and Voltage Variations					UL1778; CSA22.2 No.107.1; IEC62040, w/CB report and cert; IEC62040, w/CB report and cert; IEC61000-4-2, Electrostatic Discharge; IEC61000-4-3, Radiated Electromagnetic Field Immunity; IEC61000-4-4, Electrical Fast Transient/ Burst Immunity; IEC61000-4-5, Surge Immunity; IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances; IEC61000-4-8, Power Frequency Magnetic Field Immunity; IEC61000-4-11, Voltage Dips, Short Interruptions, and Voltage Variations								
	* For -22 models, the Rated Output Currents shown for 120 volts are for each 120 leg of the 240 volt output					All Security Plus® UPS equipment is designed, assembled and tested by POWERVAR, Inc., in the U.S.A and carries our industry-leading 3-Year Limited Warranty.								

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Security Plus UPS Options

Hardwire Connection or Custom Plug and Receptacle Panels

POWERVAR offers custom solutions to meet the electrical requirements in today's most diverse environments. With the Security Plus Series, you have the ability to custom design the output receptacle panels and (on some models) your input line cord, too. These options allow the Security Plus Series to offer a quick and easy on-site connection to your equipment.

Extended Runtime Solutions

Does your application require longer runtimes than what the internal batteries can deliver? If so, you may maximize UPS availability with matching external battery cabinets to accommodate the desired runtime. Like the Security Plus UPS itself, our extended run battery cabinets have hot-swappable battery trays. Runtimes from 1-24 hours can also be accommodated.

POWERVAR – Keeping you connected, secure, informed, and in command

Maintenance Bypass Switch

The Security Plus incorporates an internal static maintenance bypass switch. In some applications, you may need to isolate the input and output power from the UPS system to allow service personnel to perform maintenance without interrupting power to the connected critical loads. POWERVAR has the answer with wraparound external maintenance bypass switch assemblies. These make-before-break switches are available in a wall mounted or freestanding solution and in both isolated and non-isolated configurations. The maintenance bypass switch can accommodate multiple input/output voltages for greater flexibility.

UPSilon 2000 Software

The Security Plus software, UPSilon 2000, is a user-configurable and friendly power monitoring, management, and shutdown software platform, which can provide information on the status and conditions of the UPS system. UPSilon can inform you when critical events occur, notify you via email or text message, or perform a graceful shutdown of your equipment.

NetAgent

The Net Agent is a remote monitoring SNMP/web adapter designed to manage and control the POWERVAR Security Plus Series remotely via Simple Network Management Protocol (SNMP) through your internet browser. In addition, notifications, alarms, and messages can be sent to designated administrators to properly manage the protection of your equipment.

Warranty and Service

The Security Plus Series offers an industry leading 3 year product warranty on every system. POWERVAR's number one goal is to protect your process and your mission-critical equipment by protecting it from destruction, degradation or disruption. When routine maintenance or repair is required, POWERVAR offers a total service solution to maximize uptime, safeguard reliability, and lower your total cost of ownership. Contact POWERVAR for information about start-up service and extended warranty programs.

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Security Plus offers more options

to increase the value of POWERVAR UPS ownership

- CONNECTION AND INSTALLATION
- FLEXIBILITY
- EXTENDED RUNTIME SOLUTIONS
- MAINTENANCE BYPASS OPTIONS
- COMMUNICATIONS AND MONITORING
- PEACE OF MIND SERVICE PLANS



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