

# EAT•N

# Powerware

## Powerware® 9120 Uninterruptible Power System

Product Focus

700-6000 VA



### Features

- Series 9 double conversion online
- Superior electrical performance
- Extended backup time
- User friendly, informative LCD display
- ABM™, prolongs battery service life by 50%
- Software Suite bundled
- Versatile customisation options

As business becomes increasingly dependent on technology for their fundamental operation, the need for system availability is of paramount importance. The Powerware 9120 UPS is designed for applications that require maximum protection. With its double conversion design, the 9120 provides uninterruptible clean sine wave power to the critical loads and with its advanced communication, the 9120 is the ideal solution for networks, web servers as well as industrial application protection. The Powerware 9120 has been developed for critical computer and communication equipment, where losses may accumulate at frightening speed in case of power failure. In industrial environments the 9120 will protect small industrial control and automation

applications as well as security solutions. Powerware 9120 with its wide input voltage window is capable of working with mains power in most conditions without discharging batteries, thus saving battery capacity for when it is really needed. The exceptional electrical performance of the 9120 ensures that these UPS can be used in almost any application. In addition, the wide range of options such as external battery cabinets, and transformer cabinets enable customisation for a wide range of applications. The unique Advanced Battery Management (ABM) function prolongs the service life of batteries by 50%. And when ABM informs the user that the batteries should be changed this can easily be done without running down the load (hot swappable batteries).

The Powerware 9120 is supplied bundled with the Powerware Software Suite that includes everything required for trouble free operation. LanSafe included on the software package monitors all network devices and provides an orderly shutdown in the event of extended power outage. The 9120 also caters for advanced users who may require an additional interface to work with a slot for COM options like SNMP/WEB card and an AS/400 card. These options give the opportunity to build up a management system that well integrates to other management systems in a company.

## Advanced features that give you business benefits

### Advanced Battery Management

UPS systems traditionally have maintenance free lead-acid battery solution that is both critical and expensive for the user. The expected lifetime of batteries is shorter compared to the rest of the UPS. Therefore, one should pay attention to the right battery solution. Today virtually all competitive UPS products use traditional float charging technology. The unique Powerware ABM technology provides additional benefits by providing a three-stage charging technique that constantly monitors the battery charging status, and as a result only recharges when necessary, so ultimately the battery experiences less corrosion and battery service life is prolonged by up to 50%.

### Hot swappable batteries

All the Powerware 9120 models (700-6000VA) have been developed with hot-swappable batteries, therefore internal batteries can be changed without powering down the load.

### Extended runtimes

Each the Powerware 9120 model can be equipped with External Battery Cabinets, this can extend the runtimes to hours.

### Load Segments on 700-3000VA models

Load Segments are groups of outlets that can be independently controlled. To preserve battery power for more critical equipment connected to the UPS it is possible to shut down one load segment that supports less critical load and thereby preserve

battery capacity for the load segment where the most critical equipment is connected.

### Dual input on 6000VA models

Powerware 9120 6000VA models can be installed using a separate input cable for the internal bypass. This feature not only provides redundancy for the input, but it also enables system with two UPSs to increase power availability. The critical load is powered by the first UPS and in the case of a failure the load is transferred to the bypass source which is supplied by another UPS. This configuration enables redundant operation with standard UPS units.

### External Bypass options

All Powerware 9120 units can be installed with an External Bypass option which enables "swap" or service without powering down the critical load.

### User interface

Informative user interface with LCD, and four LED and audible alarms.

This enables easy configuration of your UPS by changing UPS settings using the LCD panel.

Load	Internal batteries	With 1 EBM	With 2 EBM
<b>9120 700VA</b>			
350VA/245W	20	90	160
700VA/490W	8	35	65
<b>9120 1000VA</b>			
500VA/350W	21	85	160
1000VA/700W	8	37	68
<b>9120 1500VA</b>			
500VA/350	28	115	220
1000VA/700W	14	55	100
1500VA/1050W	7	33	60
<b>9120 2000-3000VA</b>			
500VA/350W	65	>240	>420
1000VA/700W	30	125	220
1500VA/1050	19	70	140
2000VA/1400W	14	55	100
2500VA/1750W	10	45	80
3000VA/2100W	8	30	65
<b>9120 6000VA</b>			
1000VA/700W	80	>300	>480
2000VA/1400W	38	145	300
3000VA/2100W	23	90	150
4000VA/2800W	15	65	120
5000VA/3500W	10	45	85
6000VA/4200W	8	35	65



## Building solutions to manage and monitor your UPS

### **USB and RS 232 ports as standard.**

The standard serial connection has two interfaces; RS 232 and USB. In addition Powerware 9120 is equipped with a connectivity slot that works in parallel to either RS232 or USB port.

### **EPO as standard**

All Powerware 9120 comes equipped with an EPO port enabling shutdown of the connected equipment from a remote location in an emergency. After the EPO port has been activated the unit has to be started manually by pushing the ON button.



### **Software suite**

Powerware offers a full line of shutdown and monitoring software products to enhance the protection provided by its UPSs. The software suite, conveniently packed on one CD-ROM, follows every UPS free of charge.

### **Shutdown software**

LanSafe is a network shutdown software product that currently supports up to 20 operating systems. It ensures controlled sequential shutdown of the

### **ConnectUPS Web/SNMP card for connectivity slot (option)**

is a complete UPS monitoring, control and shutdown solution in a networked IT environment. In case of alert the Web/SNMP card can notify users and administrators through email and SNMP traps. In case of a prolonged power failure the protected computer systems can be shut down in a graceful manner with NetWatch and LanSafe software.

### **Relay/AS400 card (option)**

provide an easy connection to IBM AS/400 series computers as well as industrial and building management systems. You can also build a solution for a remote ON/OFF function with the relay card.

whole network across platforms in case of a prolonged power failure. LanSafe allows the shutdown of up to 64 computers protected by a single UPS.

NetWatch is a shutdown agent for the ConnectUPS Web/SNMP card. It is a very compact piece of software, but still features powerful configuration options for shutdown actions, timings and user notification. NetWatch is available for Windows, Novell, MacOS X, and most Unix platforms including Linux.

### **Environmental Monitoring Probe for ConnectUPS Web/SNMP adapters (option)**

The Environmental Monitoring Probe adds temperature, humidity and two contact closure monitoring capability to ConnectUPS Web/SNMP card. It is especially well suited for monitoring rack temperature and door status. Operating system shutdown can be triggered if user defined thresholds are exceeded or contact closure status changes.

### **Remote Control panel, ViewUPS (option)**

LCD display that allows monitoring the UPS within 50 m radius of the unit.

### **Monitoring software**

PowerVision® is performance monitoring and trend analysis software for critical UPSs and multiple UPSs in a network. It calculates trends and stores information about the operation of the UPS device in its database. PowerVision's alert and notification behaviour is highly configurable, which makes it a great tool for system administrators. Optional shutdown controller module can host hundreds of shutdown clients and it can also be used in case of paralleled UPSs.

# Technical Specifications

POWERWARE 9120 specifications table						
Rating	700VA	1000VA	1500VA	2000VA	3000VA	6000VA
Part number	91200700A	91201000A	91201500A	91202000A	91203000A	91206000A
Capacity (VA/Watts)	700/490	1000/700	1500/1050	2000/1400	3000/2100	6000/4200
Dimensions WxDxH(mm)	155x410x240	155x410x240	170x445x275	215x470x365	215x470x365	280x580x570
Weight (kg)	13	15	20	37	38	91
Input connection	IEC320/10A	IEC320/10A	IEC320/10A	IEC320/10A	IEC320/16A	Hardwired
Output connection	4xAUST10A	4xAUST10A	4xAUST10A	5xAUST10A	5xAUST15A	Hardwired
<b>Operational</b>						
Nominal input voltage (Vac)	208/220/230/240 Vac					
Input voltage range	120/140/160-276 Vac (700-3000VA at 33%/66%/100% load) 120/140/160/184-276 Vac (6000VA at 25%/50%/75%/100% load)					
Operating frequency	50/60 Hz auto sensing (+/-3 Hz, adjustable)					
Input power factor	0,97 (700-3000VA) 0,99 (6000VA)					
Nominal output voltage	208/220/230/240 Vac					
Output voltage regulation	+/-2% online; +/-3% on battery mode					
Overload capacity	Up to 125 % for 1 minute, 125-150% for 10 sec					
Efficiency	> 86% (700VA); > 88% 1000-3000VA ; > 90% 6000VA (Online mode) > 90% (700VA); > 93% 1000-3000VA ; > 95% 6000VA (High efficiency mode)					
<b>User interface</b>						
LCD display	LCD display showing both UPS meters and UPS settings					
LED	Four LEDs; UPS On, UPS on Battery, UPS on bypass, Alarm					
Standard communication ports	RS232 and USB as standard on all models					
Optional	Connectivity slot for SNMP/WEB card and relay card					
<b>Environmental</b>						
Operating temperature	0°C – +40°C					
Storage temperature	-15°C – +40°C					
Altitude	< 3000 m					
Audible noise at 1 metre	< 45 dB (700-1500VA), < 50 dB (2000-3000VA). < 55 dB (6000VA)					
<b>Certification</b>						
Markings	C-Tick CE/GS/UL (700-2000VA), C-Tick CE/GS (3000VA-6000VA)					
Safety	EN 50091-1-1 & UL 1778 (700-2000VA), EN50091-1-1 (3000-6000VA)					
EMC	EN 50091-2, EN6100-3-2 (700-3000VA), EN50091-2 (6000VA), C-Tick					

Battery Runtimes (in minutes full load/half load)*				
Model/Load	Standard internal Batteries	+1 EBM	+2 EBMs	+3 EBMs
700VA/490W	6/20	46/96	80/168	-
1000VA/700W	8/21	36/75	62/126	-
1500VA/1050W	7/20	32/67	54/112	78/157
2000VA/1400W	14/30	50/100	85/169	118/236
3000VA/2100W	8/20	30/65	50/110	75/155
6000VA/4200W	8/23	35/90	65/150	-

\* EBM runtimes include internal batteries. Run time chart provides typical information. Battery runtimes are approximate and may vary with equipment, configuration, battery age, temperature, etc.. More EBM options are available on request.

Due to continuing product improvement programs, specifications are subject to change without notice.

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