

EAT•N

Powerware

Powerware® 9120 Uninterruptible Power System

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 5000-6000VA models

Powerware 9120 5000 and 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.

| Load | Internal batteries | With 1 EBM | With 2 EBM |
|-------------------------|--------------------|------------|------------|
| 9120 700VA | | | |
| 350VA/245W | 20 | 90 | 160 |
| 700VA/490W | 8 | 35 | 65 |
| 9120 1000VA | | | |
| 500VA/350W | 21 | 85 | 160 |
| 1000VA/700W | 8 | 37 | 68 |
| 9120 1500VA | | | |
| 500VA/350 | 28 | 115 | 220 |
| 1000VA/700W | 14 | 55 | 100 |
| 1500VA/1050W | 7 | 33 | 60 |
| 9120 2000-3000VA | | | |
| 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 |
| 9120 5000-6000VA | | | |
| 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 |

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.



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 have 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 whole network across platforms in case of a prolonged power failure. LanSafe

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.

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, View-UPS (option)

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

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.

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

| Rating | 700 VA | 1000 VA | 1500 VA | 2000 VA | 3000 VA | 5000 VA | 6000 VA |
|-----------------------------|------------------|------------------|------------------|------------------------------|------------------------------|-------------|-------------|
| Part number | 05147361-5591MOV | 05147362-5591MOV | 05147363-5591MOV | 05147364-5591MOV | 05147365-5591MOV | 1018289MOV | 1018290MOV |
| Capacity (VA/watts) | 700/490 | 1000/700 | 1500/1050 | 2000/1400 | 3000/2100 | 5000/3500 | 6000/4200 |
| Dimensions WxDxH (mm) | 155x410x240 | 155x410x240 | 170x445x275 | 225x470x365 | 225x470x365 | 280x580x570 | 280x580x570 |
| Weight (kg) | 13 | 15 | 20 | 37 | 38 | 91 | 91 |
| Input connection | IEC320/10A | IEC320/10A | IEC320/10A | IEC320/10A | IEC320/16A | Hardwired | Hardwired |
| Output connection | 4xIEC320/10A | 4xIEC320/10A | 4xIEC320/10A | 1xIEC320/16A 4xIEC320/10A | 1xIEC320/16A 4xIEC320/10A | Hardwired | Hardwired |
| Typical runtime (full load) | 8 min | 8 min | 7 min | 14 min | 8 min | 10 min | 8 min |
| (half load) | 20 min | 21 min | 20 min | 30 min | 20 min | 22 min | 20 min |

Operational

| | |
|-----------------------------|---|
| Nominal input voltage (Vac) | 220/230/240 Vac |
| Input voltage range | 120/140/160-276 Vac (700-3000 VA) 120/140/184-276 Vac (5000-6000 VA) |
| Operating frequency | 50/60 Hz auto sensing (± 3 Hz, adjustable) |
| Input power factor | >0.97 (700-3000 VA) >0.99 (5000-6000 VA) |
| Nominal output voltage | 208/220/230/240 Vac |
| Output voltage regulation | $\pm 2\%$ online; $\pm 3\%$ on battery mode |
| Overload capacity | Up to 125 % for minute, 125-150% for 10 sec |
| Efficiency | >86% (700 VA); >88% 1000-3000 VA; >90% 5000-6000 VA (Online mode) >90% (700 VA); >93% 1000-3000 VA; >95% 5000-6000 VA (High efficiency mode) |

User interface

| | |
|------------------------------|---|
| 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 |

Environmental

| | |
|--------------------------|--|
| RoHS Compliance | EU RoHS/WEEE Compliant |
| Operating temperature | 0°C - +40°C |
| Storage temperature | -15°C - +40°C |
| Altitude | <3000 m |
| Audible noise at 1 metre | <45 dB (700-1500 VA) <50 dB (2000-3000 VA) <55 dB (5000-6000 VA) |

Certification

| | |
|----------|---|
| Markings | CE/GS/UL (700-2000 VA) CE/GS (3000-6000 VA) |
| Safety | EN 50091-1-1 & UL 1778 (700-2000 VA) EN 50091-1-1 (3000-6000 VA) |
| EMC | EN 50091-2, EN 6100-3-2 (700-3000 VA) EN 50091-2 (5000-6000 VA) |

External battery cabinets

| 9120 | Backup time* | Dimensions | Weight |
|---------------|------------------|----------------|--------|
| BAT 700 | Approx 30min | 155x410x240 mm | 15 kg |
| BAT 1000 | Approx 30 min | 155x410x240 mm | 20 kg |
| BAT 1500 | Approx 30 min | 170x445x275 mm | 25 kg |
| BAT 2000/3000 | Approx 50/30 min | 225x470x365 mm | 50 kg |
| BAT 5000/6000 | Approx 45/30 min | 280x580x570 mm | 125 kg |

In the interest of continual product improvement all specifications are subject to change without notice.

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